THOMSON 32VK74E

nicam television set 16/9 format

Chassis code ICC19-MM
100 Hz technology
32 inches - 16/9 format
SF-H tube
Black Matrix processing
INVAR mask
Stereo sound
Nicam 2 x 20 + 40 W
Built-in teletext
Standard : PAL / SECAM
NTSC via SCART connector
Norms : PanEuro-LL'BGIDKK'
NAVILIGHT system

image
sound
special features
connectors / general remarks

image

SF-H 32 inches tube - 16/9 format
Black Matrix processing for optimal contrast
INVAR mask
Intelligent contrast control
100Hz Motion Mastering
Zoom
Manual switch to 16/9 format
Total tube size : 32 inches diagonal
Picture size : 30 inches diagonal
Standard : PAL / SECAM / NTSC via Video
Norms : PanEuro-LL'BGIDKK'
Toptext/Fastext/Videotext EPG 2 : 488 pages

sound

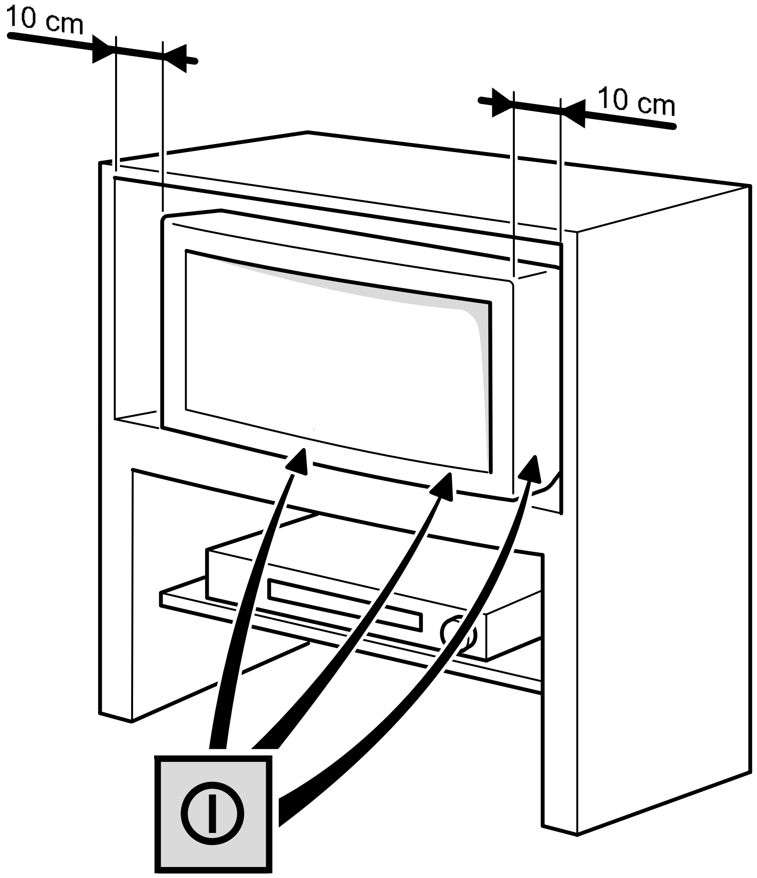
Stereo sound NICAM L/BG (DKK')/I
Power :2 x 20 + 40 W music
5 speakers: 2 mediums, 2 tweeters, 1 boomer
Spatial effects / pseudo / Virtual Dolby
Acoustic system
Control bass - treble

special features

Automatically switches to standby mode when no signal is present after 5 minutes
Child lock
Sleep control
NAVILIGHT system
Display of channel number
Memorize up to 99 channels + 3 AV channels
Personnal value memory
Frequency synthesis tuner
Compatible with cable networks
8 MHz hyperband
RCT4156 remote control

connectors / general remarks

1 antenna connector
Front or side : Headphone jack (3,5 mm)
cinches in : 2 Audio/1 Video/1 S-video
Rear : 3 SCART connectors including 1S-VHS compatible / 2 cinches audio out
Power supply : 220 - 240 V; 50/60 Hz
Consumption : 130 W/h - in stand-by mode 8 W/h
Weight : 55 kg
Dimensions (W x H x D) : 810 x 543 x 550 mm
Optional stand : STTH3240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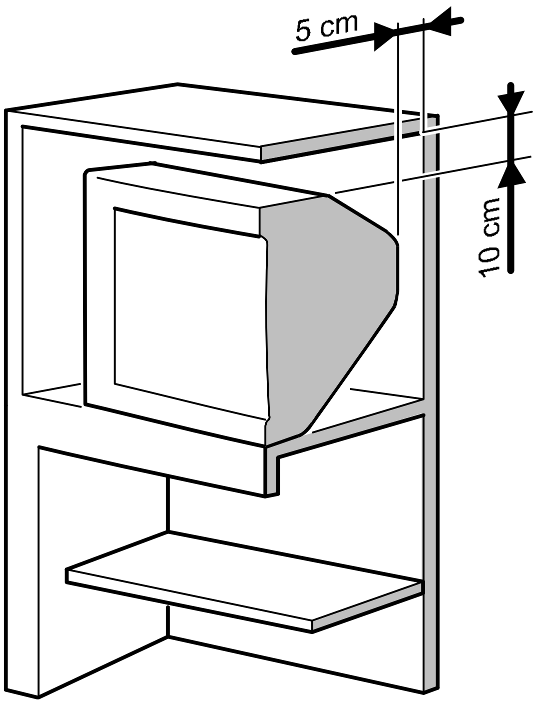
10 cm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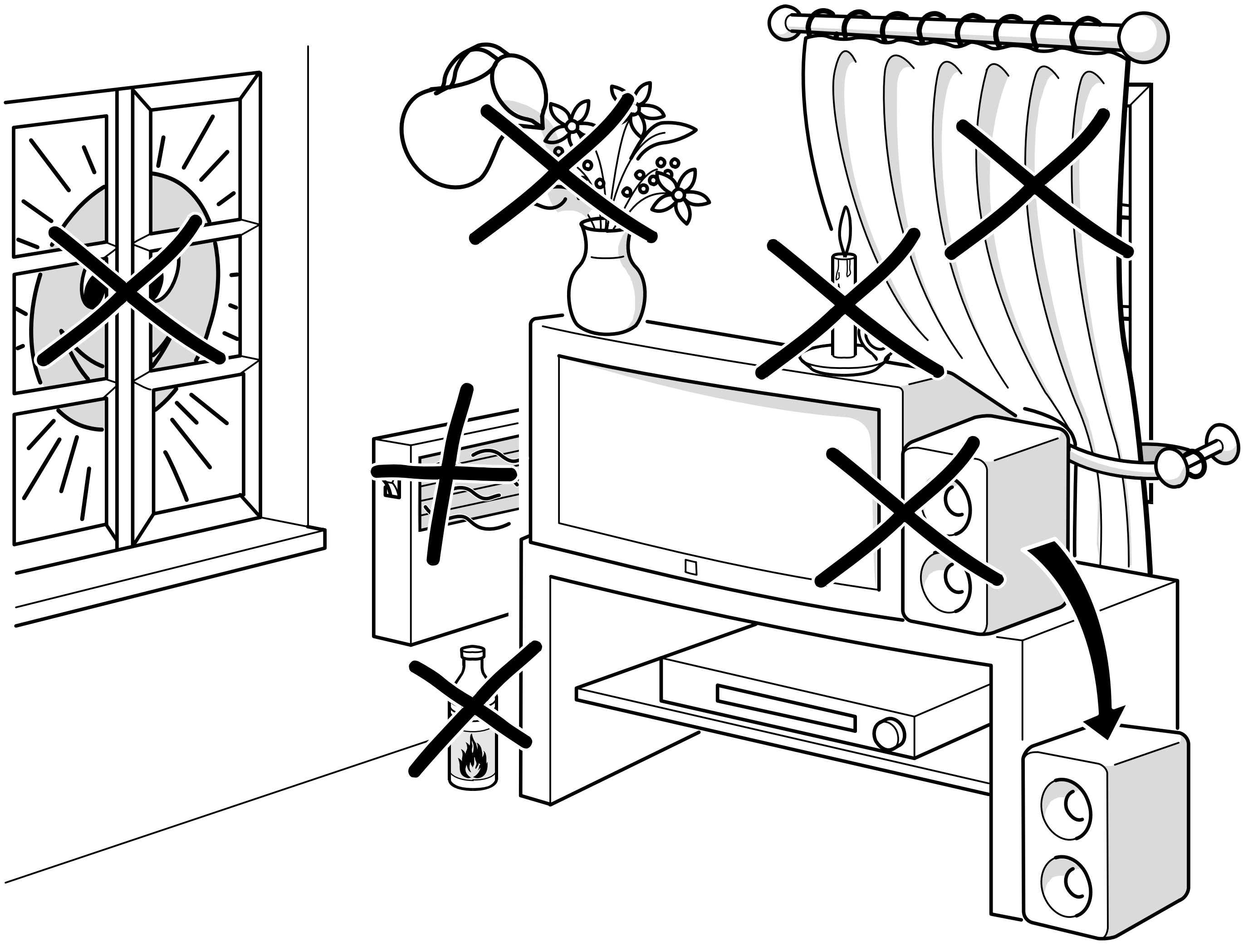

About this manual

This document is common to several television models. Therefore, certain functions or settings may not apply to the model you have purchased.

About the switch

The position of the ON/OFF ⏻ switch differs depending on the model. It may be located on the front or on the right-hand side of your set (see drawing inside the cover page of your manual).

About safety

To ensure your own safety and the safe operation of this equipment, observe the following instructions thoroughly.
Television sets require ventilation to prevent their components from overheating. Do not block the ventilation openings at the rear. If you place your TV set in a special piece of furniture, make sure there is enough space for unhindered air circulation. Do not place the TV set in the close vicinity of a heater.
The TV set has been designed for use in dry rooms. Should you use it, in exceptional circumstances in the open air (example : on the balcony, in the veranda or tent) you must absolutely protect it against moisture (dew, rain,; splash water). Before switching on a cold TV set in a warm room, you should wait until any condensation on the screen has dried by itself.
Maximum ambient temperature : 35%
Maximum humidity : 85%
At the end of your TV evening or when away from home for a longer period, we recommend that you turn off the TV set with the ON/OFF switch. Even when the ON/OFF switch is in the OFF position, your TV set is not completely disconnected from the mains. To disconnect the set completely, the mains plug must be pulled out.
The mains plug must be easily accessible
In the following cases we recommend that you pull out the mains connector :
1. During thunderstorms. In such cases, it is advisable that you also disconnect the TV set from the aerial socket.
2. If odour or smoke emanates from the set.
Never attempt to open the your TV set yourself.
Further information :
The TV set shielding is sufficient to prevent X-radiation to the exterior.
Any operation performed by a non skilled person, change of high voltage or replacement of the picture tube by a model not complying with the manufacturer specification are likely to cause considerable increase in X-radiation. A TV modified in such a way no longer complies with the manufacturer's specifications and must not be used.

About cleaning

The screen should be cleaned with a liquid glass cleaner.

- Never use abrasive products
- Clean the cabinet with a soft cloth soaked with neutral cleaner. Do not use solvents such as white spirit or alcohol-based products since they may damage your television.
- At regular intervals, clean the ventilation grids at the rear of the TV set.

About degaussing

The earth's magnetic field may have influence on your TV set. This influence is revealed by the coloured spots which appear on the screen.
Should this be the case :

- Turn off the equipment by means of the ON/OFF switch.
- Wait about one hour before switching the set on again.

This procedure performs automatic degaussing of the screen. Should there still be coloured spots on the screen, repeat the operation.

The pages of this publication are printed on recycled paper.

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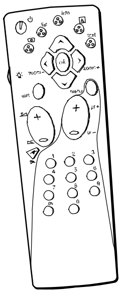

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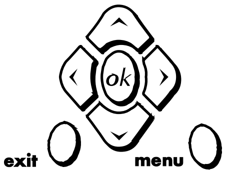

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Basic connections

The mains socket [1] allows electricity to be supplied to the set. Only connect to a 220-240 V - 50 Hz ac mains supply. The set must not be connected to a dc supply. Never connect a plug to the mains that is not properly attached to the lead, as there is a risk of electrocution.

The aerial socket [2] situated on the rear of the set allows you to connect it to an outside aerial or that of another appliance equipped with a modulator (video recorder, satellite receiver, etc.).

If you connect an appliance to the aerial socket, it must be given a programme number. This is done by switching on the television set and using it to search for the channel of the modulator (refer to the instructions for the apparatus), allocating a programme number and storing it in the memory. (See ***Manual channel programming****). When you wish to use the connected appliance, set the television to the channel allocated to it. This adjustment is not necessary for video players not equipped with a modulator.*

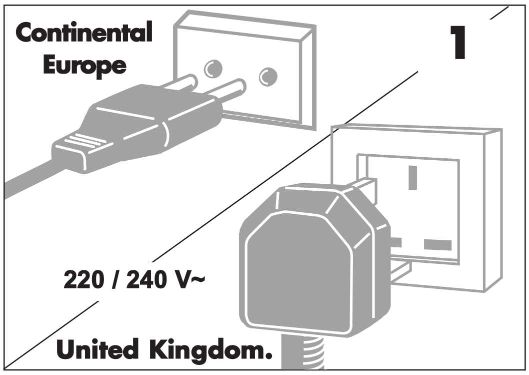
The SCART socket AV1 [3] situated at the back of the set allows you to connect a video recorder or video camera (VHS, 8mm), a Canal + decoder, a video game console or appliances supplying an RGB signal.

The SCART socket AV2 [3] situated at the back of the set allows you to connect a video recorder or video camera (VHS, 8mm).

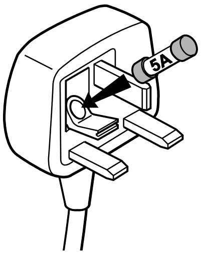
The SCART socket AV3 [3] situated at the back of the set allows you to connect a video recorder or video camera (VHS, 8mm)

We strongly recommend using this type of connection which provides a better picture quality. To use the connected appliance, press the ***av*** *button (once to select AV1, twice to select AV2 and three times for AV3, see chapter headed* ***Connecting other appliances****). With certain appliances, this selection is made automatically.*

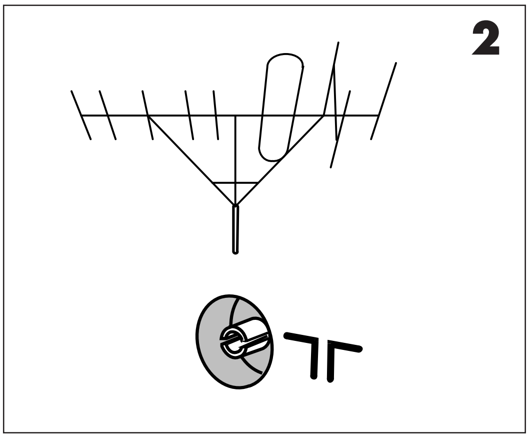
If you have not changed channels during playback, switching off the video recorder will cause the television to automatically return to the channel you were watching previously. When the set is in standby, it will automatically be switched on the moment a connected video recorder or a satellite receiver is switched on. If the set has been switched on by switching on a video recorder, it will return to standby mode the moment the video recorder is switched off. The set will automatically switch to 16/9 format if the connected appliance delivers the corresponding signal.

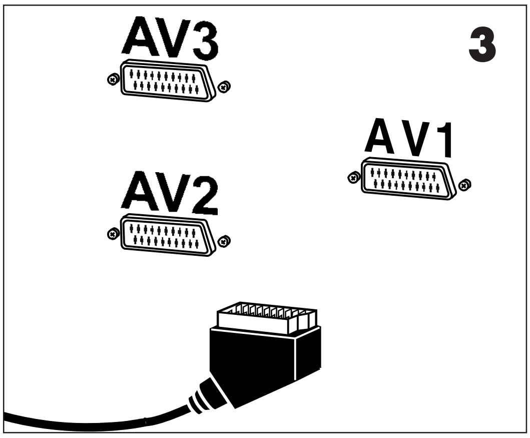


The plug is fitted with a fuse which protects your television. If your set is not working, it might be because the fuse has blown. If this is the case, replace it with a 5 amp fuse certified by the ASTA or the BSI (BS 13621).



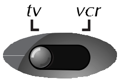
Note : the mains lead of the television set is equipped with a moulded socket. This lead incorporates certain safety features. We therefore recommend that you replace it only with an identical model and not with an ordinary lead

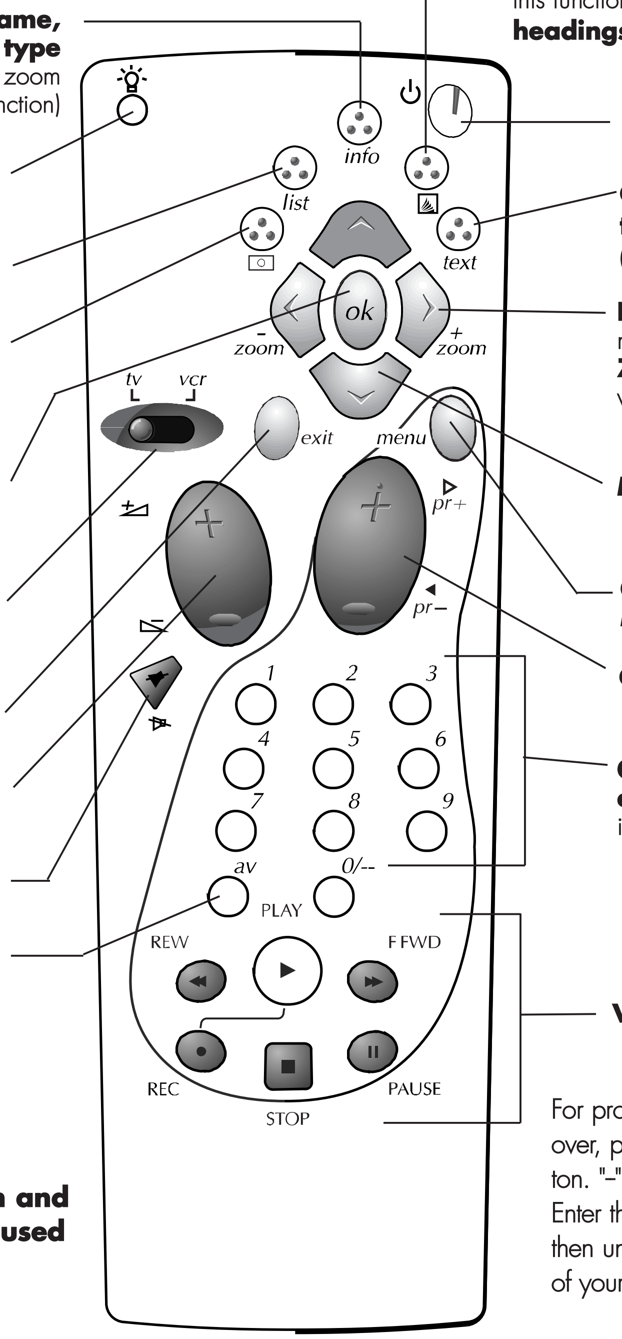




Remote Control

Television Functions





Display of channel name, time, sound type (yellow button) (and zoom for models with this function)

Illumination of remote control buttons

Call up programme list (green button)

Call up sound and picture settings (red button)

Confirm an action or **validate** a menu option **Picture freeze**

To use the remote control for your TV set or video recorder

To leave a menu

Volume adjustment

Sound mute

Access connected units (video recorder etc.)

The red, yellow, green and blue buttons are also used for the teletext.

Call up NEXTVIEW Electronic Programme Guide (for models with this function) or **Teletext (Fastext) headings** (blue button)

Standby

Call up Teletext/Toptext/Fastext function (purple button)

Right/Left Selection within menus and **Zoom Function** (for models with this function)

Move Up/Down in menus

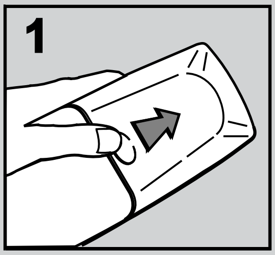
Go to adjustment function **MENU**

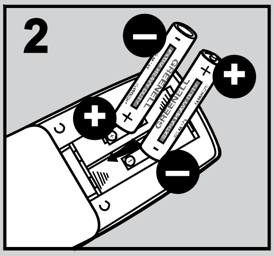
Change programme

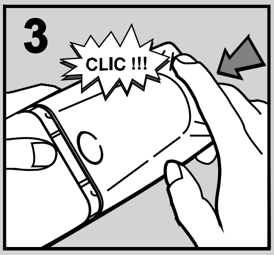
Go to programms and enter numerical values in the menus.

Video recorder functions

For programme numbers 10 and over, press the remote control 0 button. "–" will appear on the screen. Enter the programme number (tens then units) using the number buttons of your remote control.



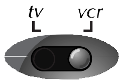




Please respect the environment! Before throwing any batteries away, consult your distributor who may be able to take them back for specific recycling.

Remote Control

Video Recorder Functions



You can use your remote control for some functions on most brands of video recorders. Before using it you must enter the code of your video recorder in the table on the next page following the adjustment procedure described below.

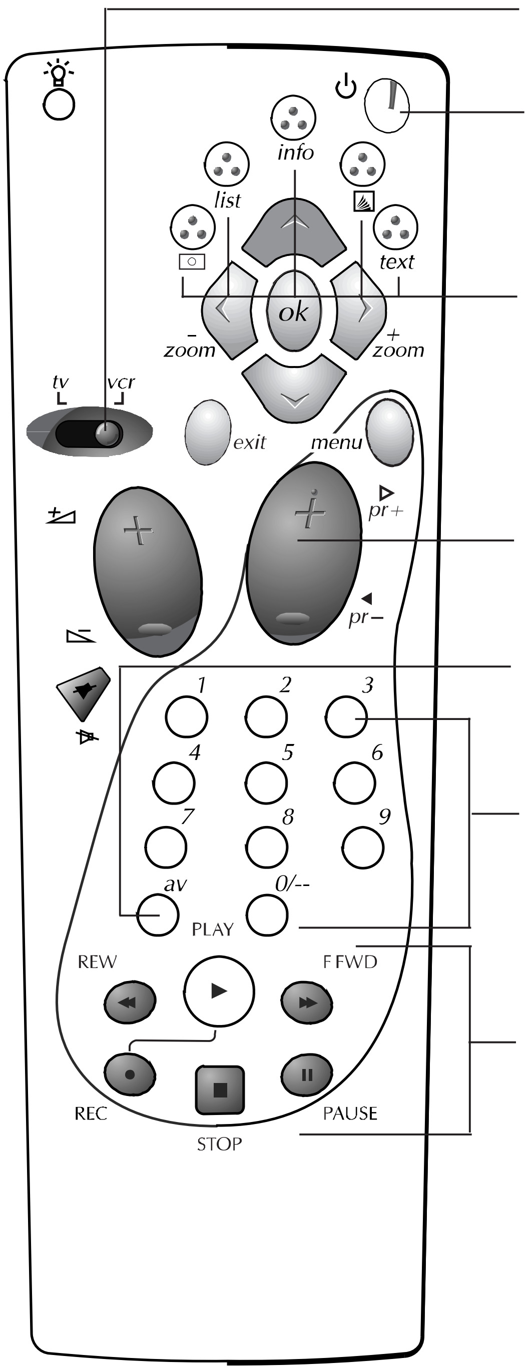
! You may find that this remote control is not compatible with your brand of video recorder or that some functions are not available.

Entering your code

1. Set the remote control to VCR
2. While holding down the **menu** button enter a 3-digit code corresponding to the brand of your video recorder.
3. Release the **menu** button.
4. Switch off your video recorder by pressing the ⏻ button.
5. If the VCR does not switch off, try one of the other codes corresponding to your video recorder.

! **When you change the batteries, you will have to enter the maker's code again**

Using the video recorder



Set the remote control to VCR

To switch your video recorder on or off

These buttons have the same functions as some of those on your video recorder remote control (if it is from our brand).

To change programme

Access to connected units

Go to programmes and enter numerical values in the menus

Video recorder functions (rewind, playback, fast forward, record, picture freeze).

Remote Control

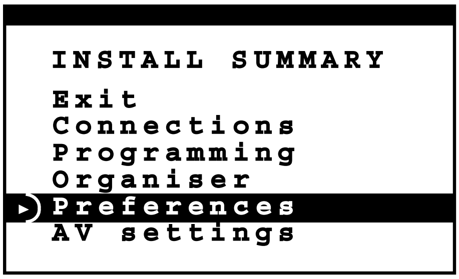
YOUR BRAND OF VIDEO RECORDER	MANUFACTURER'S CODE
AIWA	067 - 068
AKAI	003 - 004 - 005 - 006 - 007 - 008
BLAUPUNKT	008 - 009 - 062
BRANDT	001 - 012 - 002 - 059 - 010
DAEWOO	040 - 041 - 042 - 043 - 044 - 045 - 046 - 047
FERGUSON	001 - 002 - 060 - 012 - 053 - 055 - 057 - 059 - 010
FISHER	035 - 036 - 037
FUNAI	030
GOLDSTAR	023 - 034
GRUNDIG	061 - 069 - 070
HITACHI	010 - 012 - 022 - 023
JVC	006 - 010 - 011 - 012 - 013
MITSUBISHI	048 - 049
NEC	039
NOKIA	003 - 010 - 035 - 038
NORDMENDE	001 - 002 - 012 - 054 - 057 - 058 - 059 - 010
ORION	024 - 025 - 026 - 027 - 028 - 029
PANASONIC	008 - 009 - 062
PHILIPS	061 - 062 - 063 - 064 - 065 - 066
RADIOLA	061 - 062 - 063 - 064 - 065 - 066
SABA	001 - 002 - 012 - 053 - 055 - 057 - 058 - 059 - 010
SAMSUNG	033
SANYO	019 - 020 - 021
SCHNEIDER	061 - 062 - 063 - 064 - 065 - 066
SHARP	031 - 032
SONY	015 - 016 - 017 - 018
TELEAVIA	001 - 012 - 059 - 010
TELEFUNKEN	001 - 002 - 012 - 055 - 059 - 010
THOMSON	001 - 002 - 012 - 054 - 057 - 058 - 059 - 010
TOSHIBA	010 - 011 - 014

If you cannot see the brand of your video recorder on this list, try the codes of the other brands.

Menu Navigation

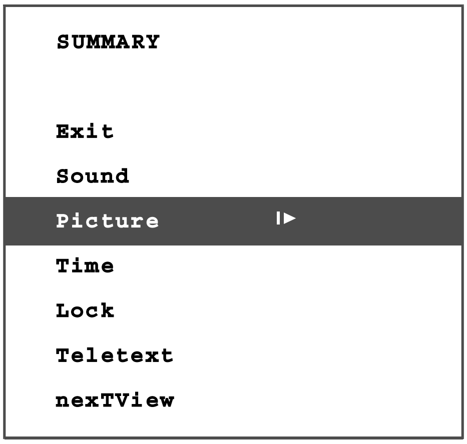
Calling up the installation menu

Press the **INSTALL** button on the TV set if available. Otherwise, set your TV set to standby then hold on the ***menu*** button on the remote control to switch on the TV and display the **INSTALL SUMMARY** menu.


INSTALL SUMMARY
Exit
Connections
Programming
Organiser
Preferences
AV settings

Calling up the SUMMARY

Press the remote control **menu** button to display the menu for using the TV functions or adjusting the set.


SUMMARY
Exit
Sound
Picture ||▶
Time
Lock
Teletext
nexTView

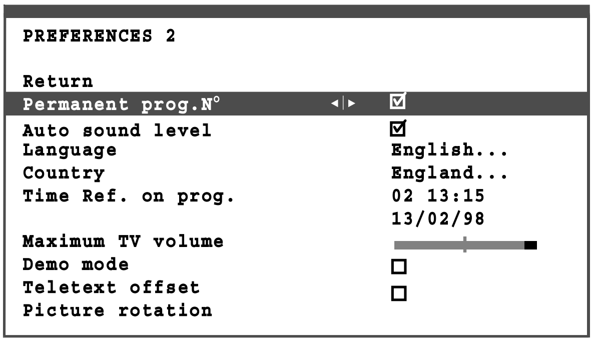
Calling up a menu

Select the desired menu using the **Up/Down** arrow buttons. Press **ok** to confirm.

Navigation within menus

Select a line using the **Up/Down** ① arrow buttons.
Press the **Left/Right** arrow buttons ② to :

- increase or decrease a value :
  example : Pre-volume ◀|▶
- select an option :
  example : Country ◀|▶ France
  Country ◀|▶ Spain
- activate or deactivate an option :
  example : Display channel N° ☐⇨☑
- Access a sub-menu :
  example : Other settings ||▶

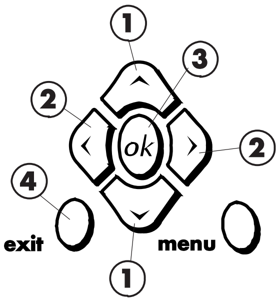


PREFERENCES 2

Return
Permanent prog.N° ◀|▶ ☑
Auto sound level ☑
Language English...
Country England...
Time Ref. on prog. 02 13:15
13/02/98
Maximum TV volume
Demo mode ☐
Teletext offset ☐
Picture rotation

Press **ok** ③ to :

- activate or deactivate an option :
  example : Display channel N° ☐⇨☑
- access a sub-menu :
  example : Other settings ||▶
- validate an action :
  example : Store in memory under N°


①
③
②
ok
②
④
exit
menu
①

To leave a menu, press **exit** ④ .

Initial installation

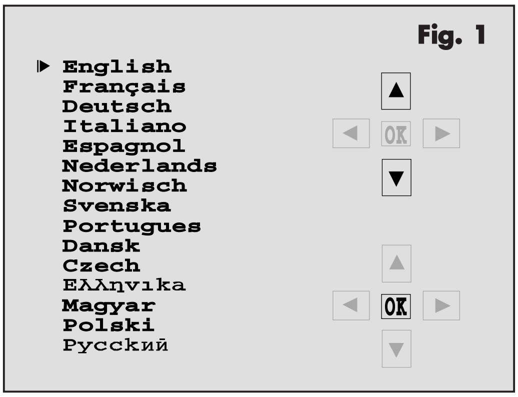
First connect the television to a mains socket and to an outside aerial or cable network, then switch on by pressing the ⏻ switch located on the front or the side of the set.
The first time the set is switched on, the language selection menu appears [Fig 1]. If this is not so, refer to chapter headed **Programme organiser**.

Start of installation

1. Press the **Up/Down** arrow buttons to select the language in which you wish the menus to appear on the screen.
2. Press **ok** to confirm.
3. A list of countries* will appear [on 2 pages]. Select the country where you live or, if you live in a border region, the country whose programmes you wish to receive.
4. Press **ok** to confirm.
5. A welcome message appears.
6. Press ok to confirm.
7. A CONNECTIONS diagram appears [Fig. 2]. Check that the aerial lead and other appliances are properly connected.
8. Press **ok** to confirm.
9. Press **ok** to start AUTOMATIC PROGRAMMING [Fig. 3]
10. A message appears to inform you that auto programming has begun. Wait for a few minutes : another message will appear to inform you that auto programming is complete [Fig. 4].
11. If you wish to check or reorganise the programmes, press **ok** and refer to the chapter headed **Programme organiser**.
    If you do not wish to reorganise the programmes, you can leave the menus by pressing ***exit*** and watch the programme of your choice. Select your programme using the number buttons [1, 2, 3, etc.] or the ***pr+/pr-*** buttons.
    If you have a decoder, refer to the chapter headed **Manual Programming**.
    Because the channels searched for will depend on the country selected, refer to the chapter headed **Manual Installation** to install those channels which might have been missed. For cable networks, refer to the chapter headed **Update / Reprogramming** for installing any missing channels.

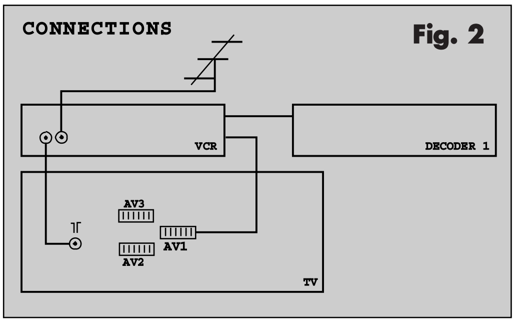
End of Installation

* The list of countries may vary depending on the model.



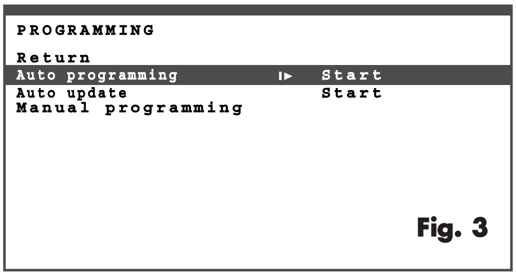
▶ English
Français
Deutsch
Italiano
Espagnol
Nederlands
Norwisch
Svenska
Portugues
Dansk
Czech
Ελληνικα
Magyar
Polski
Русский
OK
OK

Fig. 1



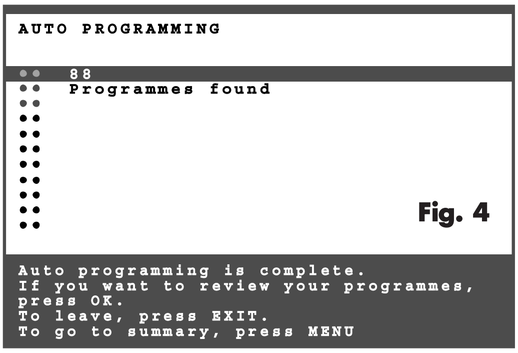
CONNECTIONS
VCR
DECODER 1
AV3
AV1
AV2
TV

Fig. 2



PROGRAMMING
Return
Auto programming ▶ Start
Auto update Start
Manual programming

Fig. 3



AUTO PROGRAMMING
88
Programmes found

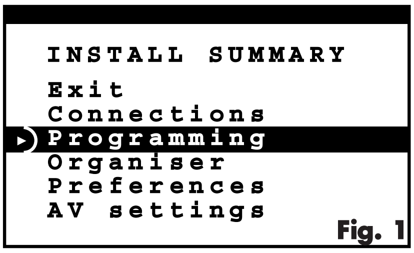
Fig. 4

Auto programming is complete.
If you want to review your programmes, press OK.
To leave, press EXIT.
To go to summary, press MENU

Update / Reprogramming

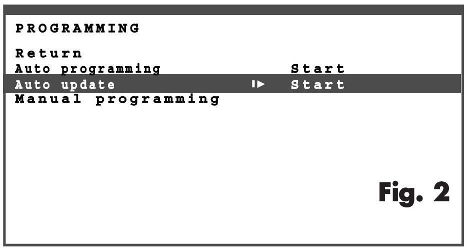
1. Press the **INSTALL** button on the TV set if available. Otherwise, set your TV set to standby then hold on the ***menu*** button on the remote control to switch on the TV and display the **INSTALL SUMMARY** menu.
2. Select **Programming**
3. Press **ok** to confirm.
4. A list of countries* will appear on 2 pages. Select the country where you live or, if you live in a border region, the country whose programmes you wish to receive.
5. Press **ok** to confirm.
6. The PROGRAMMING menu will be displayed [Fig. 2] with **Auto update** already selected.

   Proceed with Auto update or select **Auto programming** as required



```
INSTALL SUMMARY
Exit
Connections
Programming
Organiser
Preferences
AV settings
```

Fig. 1



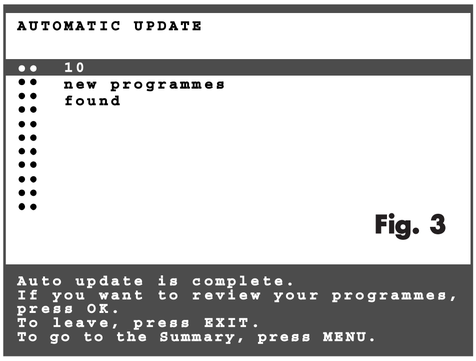
```
PROGRAMMING
Return
Auto programming        Start
Auto update             Start
Manual programming
```

Fig. 2

Auto update

Auto update function allows you to add new channels to your system or to complete your installation if certain channels are missing or badly installed.
The channels already set will not be erased.

7. Press **ok** to start the automatic update.
   A message at the bottom of the screen informs you that automatic updating has started. Wait for a few minutes. Another message will appear to inform you that the update is complete [Fig. 3]
8. If you wish to check or reorganise the programmes press **ok** and refer to the chapter headed **Programme organiser**, otherwise press ***exit*** to leave the menu and use your TV set normally.



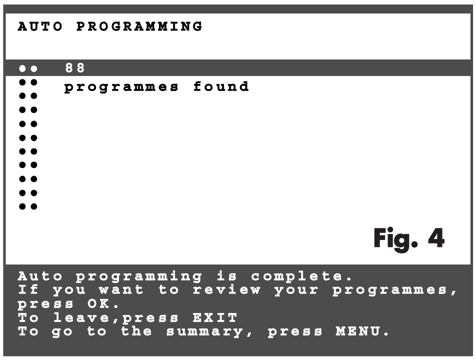
```
AUTOMATIC UPDATE
10
new programmes
found

Auto update is complete.
If you want to review your programmes,
press OK.
To leave, press EXIT.
To go to the Summary, press MENU.
```

Fig. 3

Auto programming

Auto programming *can be useful when it is wished to reprogram the settings at a later date (e.g.: after moving house). It will erase all channels previously stored in the memory.*

When you wish to install a new channel, it is preferable to use ***Auto update*** *or* ***Manual programming*** *(see corresponding paragraphs).*



```
AUTO PROGRAMMING
88
programmes found

Auto programming is complete.
If you want to review your programmes,
press OK.
To leave,press EXIT
To go to the summary, press MENU.
```

Fig. 4

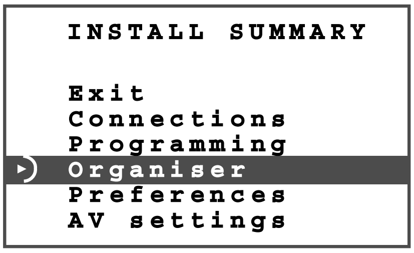
7. Select **Auto programming**.
8. Press **ok** to start automatic programming.
   A message informs you that the automatic programming has started. Wait for a few minutes. Another message will appear to inform you that programming is complete [Fig. 4].
9. If you wish to check or reorganise the programmes press **ok** and refer to the chapter headed **Programme organiser**, otherwise press ***exit*** to leave the menu and use your TV set normally.

Because the channels searched for will depend on the country selected, refer to the chapter headed Manual programming to install those channels which might have been missed.
For cable networks, if certain channels have been missed, select Others instead of a country before rerunning auto update.
** The list of countries may vary depending on the model.*

Programme organiser

During automatic channel programming, your TV set searches for the name of the channel and allocates it a programme number according to the country selected. The programme organiser menu allows you to name those channels whose names may not have been found, to change the order of the channels and erase channels where reception is poor. Follow the messages at the bottom of the screen. For further details, read the information below

To go the **Organiser** menu, press the **INSTALL** button on the TV set if available. Otherwise, set your TV set to standby then hold on the ***menu*** button on the remote control to switch on the TV and display the **INSTALL SUMMARY** menu.Select **Organiser** and press **ok** to confirm.



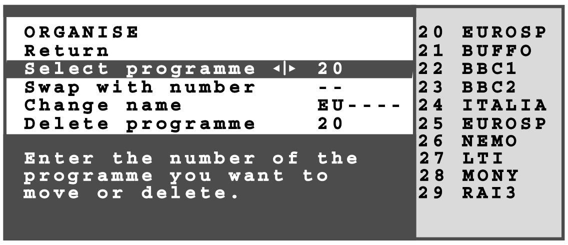
```
INSTALL SUMMARY

Exit
Connections
Programming
Organiser
Preferences
AV settings
```

Erase programmes where reception is poor :

1. Go to **Select *programme***.
2. Use the ***pr+*** and ***pr-*** buttons to check through your programmes.
3. When you come to a programme to be erased, select the **Delete programme** line.
4. Press **ok** to delete the programme.
5. Repeat for other programmes.

Arrange programmes in any order you want :

1. Go to **Select programme**.
2. Using the **pr+ / pr-** buttons and the station logos, search for the programme you want to be N°1. Its current number appears in the **Select programme** line.
3. Select the **Swap with number** line.
4. Enter 01.
5. Press **ok**. The programme you want will appear in position N° 1 and the two programmes will have swapped positions.
6. Repeat for the other programmes.



```
ORGANISE                            20 EUROSP
Return                              21 BUFFO
Select programme ◄|►  20            22 BBC1
Swap with number      --            23 BBC2
Change name           EU----        24 ITALIA
Delete programme      20            25 EUROSP
                                    26 NEMO
Enter the number of the             27 LTI
programme you want to               28 MONY
move or delete.                     29 RAI3
```

Naming programmes :

1. Select the **Change name** line.
2. Select a name from the list using the **Left/Right** arrow buttons.
3. If you cannot find a name in the list, select the name where only the first letter is yellow.
4. Display the desired letter using buttons 1 and 2.
5. Select the next letter using the **Left/Right** arrow buttons
   The name will be acknowledged when you change line or leave the menu.
6. Repeat for the other programmes.

Once you have completed organising the programmes, press ***exit*** to leave the menu.

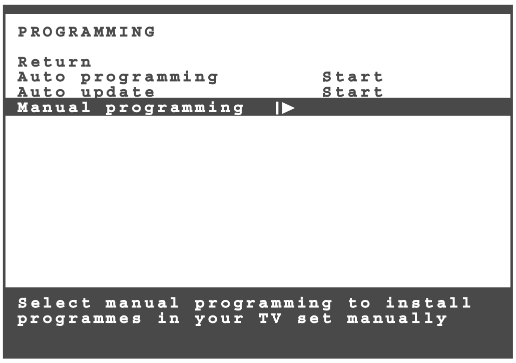
Manual programming

Manual programming

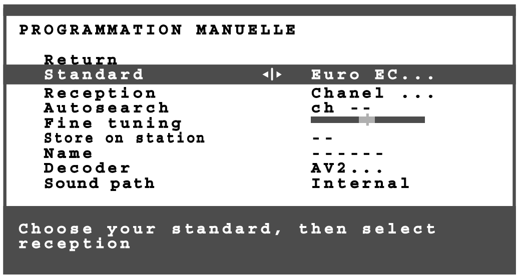
Setting programmes manually can be useful if some programmes have not been set despite running AUTO PROGRAMMING or update.

1. Press the **INSTALL** button on the TV set if available. Otherwise, set your TV set to standby then hold on the ***menu*** button on the remote control to switch on the TV and display the **INSTALL SUMMARY** menu.
2. Select **Programming**.
   A list of countries* will appear on 2 pages [Fig. 2]. Select the country where you live or, if you live in a border region, the country whose programmes you wish to receive
3. Press **ok** to confirm.
4. Select **Manual programming**.
5. Press **ok** to confirm.
6. Continue by following the instructions at the bottom of the screen. For further details, read the information below.

CAUTION : When you have made all the necessary settings for a channel, go **To store on station** to store them. Then go on to the next channel.



```
PROGRAMMING

Return
Auto programming          Start
Auto update               Start
Manual programming   |▶

Select manual programming to install
programmes in your TV set manually
```



```
PROGRAMMATION MANUELLE

  Return
  Standard            ◂|▸  Euro EC...
  Reception                Chanel ...
  Autosearch               ch --
  Fine tuning
  Store on station         --
  Name                     ------
  Decoder                  AV2...
  Sound path               Internal

Choose your standard, then select
reception
```

To leave press exit

Standard:

Your TV set can receive channels from all over Europe, and other countries depending on the following selection:

France	France and Luxembourg
Pal+	Switzerland (special standard)
DKK'	Eastern Europe and Middle East
I	UK and Ireland
Euro BG	Western Europe.

Reception

Your TV set can receive channels via an aerial or cable network. Some cable networks use the same frequencies as aerial channels. In this case, select **Aerial** instead of Cable. When you start your search, your TV will stop on the first channel found.

Auto search

Enter the channel number if you know it, otherwise start the search using the **Left/Right** arrow buttons. Your TV set will stop on the first channel found. If you wish to store it, go to Store on station otherwise restart the search using the **Left/Right** arrow buttons.

Fine tuning

If the picture is not good, try the **Fine tuning** function, or skip this channel and continue the search.

Store on station

If the picture is good, select **Store on station** then enter the number you will use to call up the channel Press **ok** to confirm.

Name

If the channel is identified by the transmitter, its name will automatically be displayed. You can also select it from the list of names that you can scroll through using the **Left/Right** arrow buttons.
If no name is suitable, press the **Right** button until the message at the bottom of the screen asks you to compose a name using buttons 1 and 2.

Decoder

If you have a decoder, select the socket to which it is connected (AV1 or AV2).

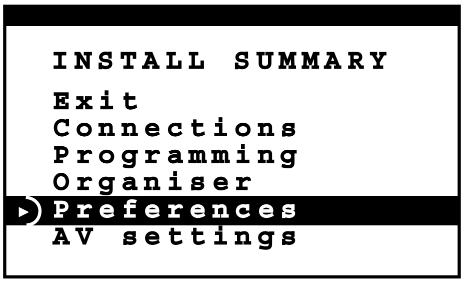
Sound path

Switch on your decoder. If the sound is distorted by the decoder, select **internal** or **external**.

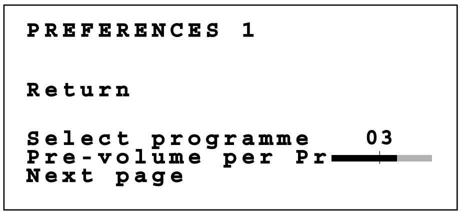
Personal Settings

Certain of the functions of your TV set can be personalised using the **PREFERENCES** menu.

1. Press the **INSTALL** button on the TV set if available. Otherwise, set your TV set to standby then hold on the ***menu*** button on the remote control to switch on the TV and display the **INSTALL SUMMARY** menu.
2. Select **Preferences**.
3. Press **ok** to confirm.
4. Select and set the proposed options by following the messages at the bottom of the screen.
   For further details, read the information below.



Select programme :
To select the channel for which you wish to set the pre-volume.


PREFERENCES 1

Return

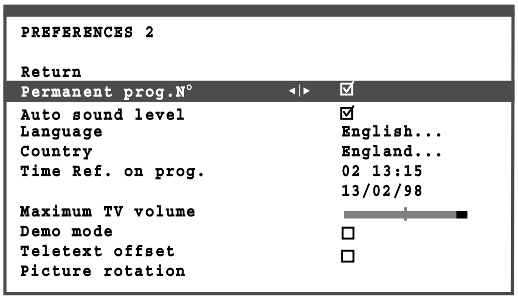
Select programme 03
Pre-volume per Pr
Next page

Pre-volume :
To balance the volume between different stations. Select the programmes in turn at the **Select programme line**, then select **Pre-volume** and adjust.

Next page :
To access the **PREFERENCES 2** menu.

Permanent Prog. N° :
For a permanent display of the programme number.

Auto sound level :
This function enables you to have the same sound level on all channels.
Activate or deactivate auto sound level.
*For models equipped with Virtual Dolby Surround this function has no effect as long as Dolby Virtual is selected in the **Sound menu**.*


PREFERENCES 2

Return
Permanent prog.N° ◄|► ☑
Auto sound level ☑
Language English...
Country England...
Time Ref. on prog. 02 13:15
13/02/98
Maximum TV volume
Demo mode ☐
Teletext offset ☐
Picture rotation

Language :
To select another language for the menus.

Country :
Select the country where you live if you wish to run the **Auto update** function.

Time ref. on prog :
To automatically set the time.
Select a channel with teletext. The time is then be set automatically and displayed after the programme number.
When you select this line, TV will switch to the programme indicated in the line.

Maximum TV volume :
To limit the volume (e.g. for children). Press **ok** to hear the maximum level set

Demo mode :
This mode must be deactivated in normal use.

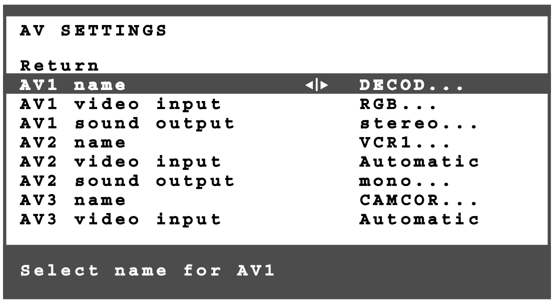
Teletext offset :
Improves teletext in certain regions (especially in France). If you have teletext character display problems click on the box.

Picture rotation (if included) :
Corrects the effects of the earth's magnetic field and the horizontal alignment of the picture.

Connection preferences

AV Settings

This menu helps you identify the sockets and appliances connected to them. Select an appliance name from the list or enter another name.



```
AV SETTINGS

Return
AV1 name             ◄|►  DECOD...
AV1 video input           RGB...
AV1 sound output          stereo...
AV2 name                  VCR1...
AV2 video input           Automatic
AV2 sound output          mono...
AV3 name                  CAMCOR...
AV3 video input           Automatic

Select name for AV1
```

To leave press exit

1. Press the **INSTALL** button on the TV set if available. Otherwise, set your TV set to standby then hold on the ***menu*** button on the remote control to switch on the TV and display the **INSTALL SUMMARY** menu.
2. Select **AV settings**.
3. Press **ok** to confirm.
4. Select and set the proposed options by following the messages at the bottom of the screen. For further details, read the information below.

AV1 name
Select the name of the appliance connected to AV1 from the list. If no name is suitable, enter the name of your choice over a name displayed in white letters.

AV1 video input (video signal of connected appliance) :
If you select **Automatic**, you will not need to worry about the signal format of the connected appliance. Your TV will automatically recognise Video, S-Video and RGB. Select RGB if you get no picture when a video games console is connected.
Select **Photo-CD** if you have one connected.

AV1 sound output :
Indicate the type of sound that you wish to record, depending on whether a mono or stereo video recorder is connected.

AV2 name :
Proceed as for AV1 name.

AV2 video input (according to model) :
Select **Auto** or **Photo-CD** (see **AV1 video** input).

AV2 sound output :
Proceed as for AV1 sound output

AV3 name :
Proceed as for AV1 name

AV3 video input (according to model) :
Select **Auto** or **Photo-CD** (see **AV1 video** input)

Sound settings

Press the **menu** button on the remote control to display the SUMMARY menu.
Select **Sound**.
Press **ok** to display the **Sound** menu.

Select and set the proposed options with the help of the following instructions.

Sound :
The choices available to you depend solely upon the broadcast signal.

Select the line, then choose the desired type of sound

Mode :
The choices available to you will depend on the model of TV and the type of sound.
Magic and Dolby Virtual are only available in stereo on those models equipped with Virtual Dolby Surround. The Stereo wide option is only available on those televisions not equipped with Virtual Dolby Surround.
Select the line, then select the desired mode using the **Left/Right** arrow buttons.

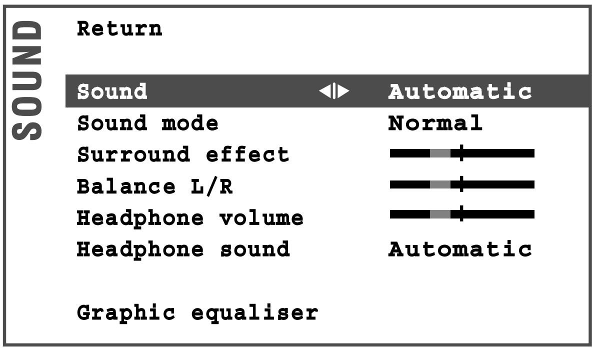
Surround Effect :
This line will only appear if you have selected **Dolby Virtual** under **Mode**.
Select the line and set the spatial sound effect to your taste.

Balance L/R :
Select the line, then adjust the sound balance between the left- and right-hand speakers.

Headphone volume :
Select the line, then set the headphone volume level.

Headphone sound :
Allows you to make the same setting adjustments for the headphone as with the **Sound line** for the loudspeakers.

Graphic equaliser :
Select the line and press **ok** to access the Graphic Equaliser.



```
SOUND
Return

Sound                ◄►  Automatic
Sound mode               Normal
Surround effect
Balance L/R
Headphone volume
Headphone sound          Automatic

Graphic equaliser
```

broadcast signal	**available choices**
mono	automatic - mono
stereo	mono - stereo
dual	sound 1 - sound 2
NICAM-3	sound 1 - sound 2 - sound 3
AV	Stereo - sound 1 - sound 2

Mode	**effect**
- Normal :	original sound (mono or stereo)
- Virtual stereo :	stereo effect from mono signal
- Stereo wide :	accentuation of stereo effect
- Magic :	accentuation of stereo effect and added echo.
- Dolby Virtual :	Virtual Dolby Surround.

Based on Dolby Pro Logic decoding, Virtual Dolby Surround reproduces the Left, Right, Centre and Virtual Surround channels using two loudspeakers.

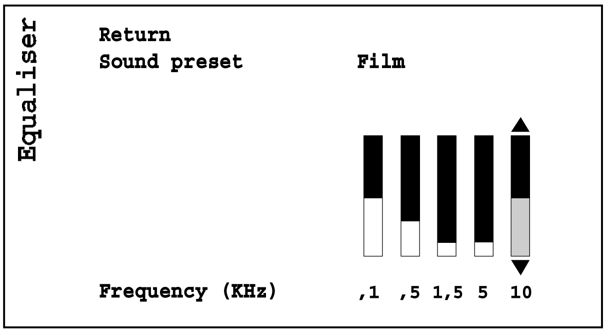
"Dolby", "Prologic" and the double D symbol are registered trademarks of Dolby Laboratories Licensing Corporation.
Manufactured under licence of Dolby Laboratories Licensing Corporation.

Day to Day Operation

Graphic Equaliser

This menu allows you to adjust the tone using a 5 band graphic equaliser.

Select and set the proposed options with the help of the following instructions.



Equaliser

Return

Sound preset Film

Frequency (KHz) ,1 ,5 1,5 5 10

Settings :
Select from the proposed pre-set options, the one that best suits the sound of the programme you are watching.
Select the line and choose the desired option.

The Personal option calls up the tone settings made by you in the Frequency line and which have been stored as your personal settings.

Film	:	for films
Voice	:	for discussion programmes
Music	:	for musical programmes
Flat	:	flat response curve
Standard	:	optimised factory settings
Personal	:	personal settings

Frequency :
Gives access to each of the 5 frequency bands.
Adjust the setting to your taste using the **Up/Down** arrow buttons.
Select the line with the **Up/Down** arrow buttons,
Activate the frequency band to be adjusted using the **Left/Right** arrow buttons.

.1	:	100 Hz band
.5	:	500 Hz band
1.5	:	1.5 kHz band
5	:	5 kHz band
10	:	10 kHz band

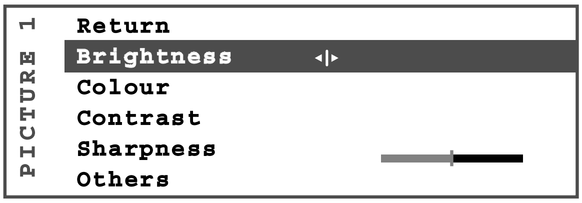
Any adjustment to a frequency band causes the ***Sound preset*** *to switch to Personal and the revised settings to be stored as the new personal settings.*

Once the adjustment has been made, you may, if you wish select other lines by pressing ***ok*** *to deactivate the band currently being adjusted. You will then be able to navigate within the menu once more using the* ***Up/Down*** *arrow buttons.*

Press ***exit*** to leave the menu.

Picture settings

Press the menu button on the remote control to display the SUMMARY **menu**.
Select Picture.
Press **ok** to display the **PICTURE 1** menu.


PICTURE 1
Return
Brightness ◂|▸
Colour
Contrast
Sharpness
Others

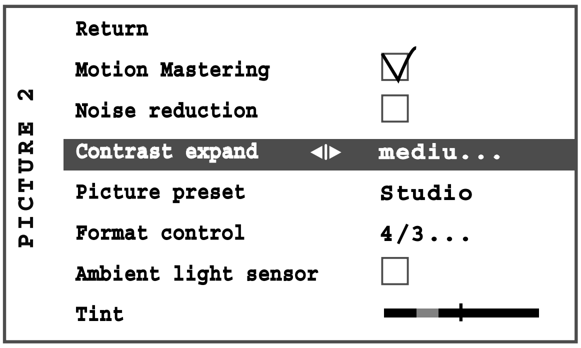
Select and set the proposed options with the help of the following instructions.

Brightness, Colour, Contrast, Sharpness :
Select each line in turn and adjust to suit your taste.

The sharpness can be set differently for each programme.

*Any adjustment made within this menu causes the **Picture preset** of the **PICTURE 2** menu to automatically switch to **personal** and the revised settings to be stored as the new personal settings.*

Others :
Gives access to the ***PICTURE 2*** menu.


PICTURE 2
Return
Motion Mastering ☑
Noise reduction ☐
Contrast expand ◂|▸ mediu...
Picture preset Studio
Format control 4/3...
Ambient light sensor ☐
Tint

Motion mastering* :
Makes motion more natural. Tick the box.

Noise reduction* :
Improves picture quality if reception is poor. Tick the box.

Contrast expand :
Select the line then the desired level of expanded contrast (High, Medium or Low).

Picture preset :
You can select from among the proposed pre-set options the one that best suits the picture of the programme you are watching.
Select the line and choose the desired option.

Film : for films
Studio : for studio broadcasts
Sport : For sports programmes
Personal : personal settings
Standard : factory settings

The Personal option calls up the settings you have made in the **PICTURE 1** menu and which have been stored as your personal settings.

Format control :
Select the picture format.

4/3 : programmes broadcast in 4/3 format
16/9 : programmes broadcast in 16/9 format
Automatic : your set automatically adapts itself to the format received.

Ambient sensor *:
Automatically adapts the contrast of the television to the surrounding lighting conditions. Tick the box.

Tint :
This line only appears for an NTSC source (in AV mode).

Press ***exit*** to leave the menu.

*If included.

Day to Day Operation

Programme selection

For programme numbers 1 to 9, press the remote control number key corresponding to the desired programme. For programme numbers 10 and over, press the remote control **0** button. "- -" will appear on the screen. Enter the programme number (tens then units) using the number buttons of your remote control.

If you press ***0*** *while "–" is displayed on the screen the display will change to* **"0-"***, giving access to programme numbers 1 to 9 only.*

Go to next programme

You can run through the programmes in turn using the ***pr + and pr -*** buttons.
Pressing ***pr +*** when you are watching an **AV** source will select the next available tuner programme up from the last network channel you were watching.

Audio-visual (AV) programmes

Pressing the av button calls up the last AV source watched. Press the button repeatedly to scroll through the **AV** sources in turn.

Volume

Use the volume + / - buttons to increase or decrease the sound volume.

Sound mute

Press 🔇 to mute the sound, press again to restore.

Zoom

This function is useful for pictures in 4/3 or letterbox format (black strips at the top and bottom of the screen). Use the **Left/Right** *arrow buttons to select the desired level of magnificatio.*

ZOOM 0 : 4/3 format picture (with black strips on the sides)
ZOOM 1 : for letterbox pictures
ZOOM SUBTITLES* : magnified image, shifted towards the top of the screen to enable the reading of subtitles.
FULL SCREEN* : 4/3 format picture filling the entire screen
* 16/9 models only

Display information

Press ***info*** to display the following information on the screen : programme number and name, time, zoom, sound.

Sound and picture preferences

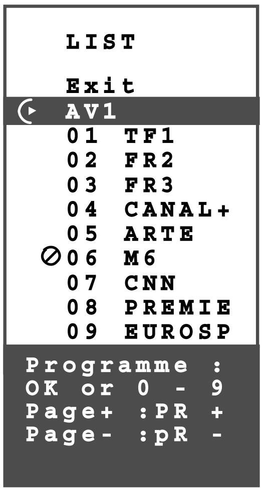
Press the red button to display the Sound and Picture preferences menu.
Select the desired line using the **Up/Down** arrow buttons.
Select the pre-set which best suits the programme you are watching with the **Left/Right** arrow buttons.

Switching off the television

Switch off the television by pressing the standby button of the remote control or the On/Off switch on the TV set itself.

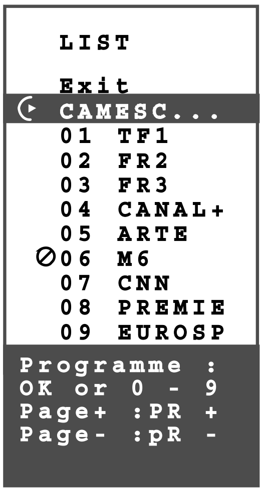
Programme list

With this function, you can quickly locate and tune in to programmes. Access is also possible using the **list** button (green).
The ⊘ symbol indicates that the channel has been locked out.



LIST

Exit
AV1
01 TF1
02 FR2
03 FR3
04 CANAL+
05 ARTE
⊘06 M6
07 CNN
08 PREMIE
09 EUROSP
Programme :
OK or 0 - 9
Page+ :PR +
Page- :pR -



LIST

Exit
CAMESC...
01 TF1
02 FR2
03 FR3
04 CANAL+
05 ARTE
⊘06 M6
07 CNN
08 PREMIE
09 EUROSP
Programme :
OK or 0 - 9
Page+ :PR +
Page- :pR -

Time

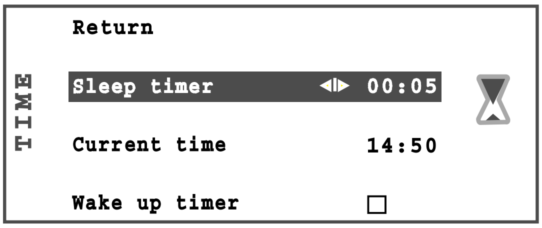
In this menu you can set the automatic stop or alarm on your TV set.

Press the menu button of the remote control to display SUMMARY. Select ***time*** *and press* ***ok*** *to confirm.*

Sleep timer
To set the automatic stop press ◄ and ► lto set the time remaining before the TV switches off.

It will switch off when the time has elapsed. To cancel, set to 00.00.

Current time
The current time is set from teletext.
See the **PREFERENCES 2** MENU. You can also set the time manually using the numerical buttons on your remote control.



TIME
Return
Sleep timer ◄► 00:05
Current time 14:50
Wake up timer ☐

Wake up timer

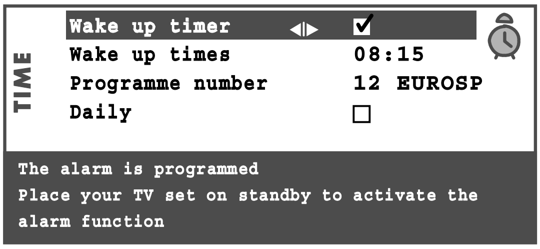
To programme your TV set to wake you up, you must first set the clock on your TV to the right time (see above).

Press the **Menu** button of the remote control to display **SUMMARY**. Select **Time** and press **ok** to confirm.

Select wake up timer and click on the function box (by pressing ok). Then set the Wake up time and select the programme you wish to wake up to.

Select **daily** to set the alarm every day.
Press B to put the TV on standby, the red indicator light will flash.

The TV set will switch on automatically at the set time and will switch off one hour later if you do not use the remote control. You can use this function to make it appear the house is occupied during your absence.



TIME
Wake up timer ◄► ☑
Wake up times 08:15
Programme number 12 EUROSP
Daily ☐
The alarm is programmed
Place your TV set on standby to activate the alarm function

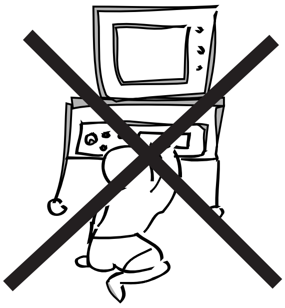
To leave press exit

Day to Day Operation

Child lock

This function is used to deactivate the buttons on the TV set. To cancel the child lock, press one of the number buttons on the remote control.
The child lock is activated :

- after the sleep timer function,
- if an alarm time is set,
- after switching off the TV set by holding down the Standby button on the remote control for more than 3 seconds.



The red On/Standby light flashes when the child lock is activated

Lock

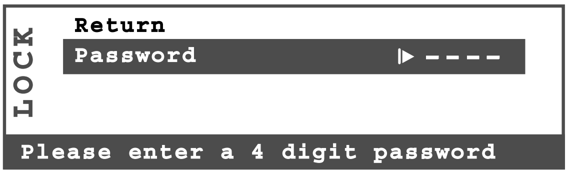
Access to certain channels and the INSTALLATION menu can be locked with a password. To watch a locked channel enter the corresponding password.

1. Press the **menu** button on the remote control to display **SUMMARY**.
2. Select Lock and press **ok** to confirm.
3. Enter your password (any 4 digits) and follow the instructions at the bottom of the screen.
4. Enter the number of the programme you wish to lock and activate the **Lock** option.
5. Select the next programme.
6. The lock is activated after setting the TV on standby or switching off with the On/Off switch. Locked programmes are marked with the ⊘ symbol in the programme directory.

To unlock a programme, follow the same procedure and deselect the **Lock** option.

To watch a locked programme without unlocking it call up the channel normally. A message will ask you for your password.

When you enter a password for the 1st time or if you change it, the **Repeat password** message appears. Enter your password again to confirm.



Please enter a 4 digit password

To change a password, select new password and enter your new password twice. Enter a new password 0000 to cancel the lock.

If you have lost your password proceed as follows :
Display the **LOCK** menu, then on the TV set,

- press the **pr +** and **Vol +** buttons at the same time.
- hold these buttons down then switch the TV set off then on again using the On/Off switch.
- the lock is now deactivated.

Teletext

Some stations broadcast an electronic newspaper with different headings and news reports. Press the **text** button to display it. Teletext is presented and used in different ways according to country and channel (**Teletext, Fastext or Toptext**)

When the "no teletext transmission" message appears on the screen, this means that teletext is not available on that station.
Your TV set can store 500 pages of Fastext or Toptext for faster consultation.

Page display :
Press the purple **text** button to access the teletext. The summary page is displayed (page Select 100).
To go to a page or a heading, follow the instructions at the bottom of the screen or use the colour buttons and go to the bottom line.
You can use the **pr+** and **pr-** buttons to call up the previous or the next page.

To leave Teletext :
Press the ***exit*** or **text** button (purple).

Scrolling pages :
Some information is spread over several pages. These are scrolled on your screen as they are received. To stop scrolling, select STOP and press **ok**. The sub-pages are then stored and can be accessed by pressing the **pr +** and **pr -** buttons, or by entering their numbers. To resume scrolling, press **ok**. If the symbol turns red when you select STOP, it means there is no sub-page.

Other options :
In some countries (Spain, Benelux, etc.), you can set a page display time by entering the time instead of the sub-page number (e.g. 1705 for 17:05).

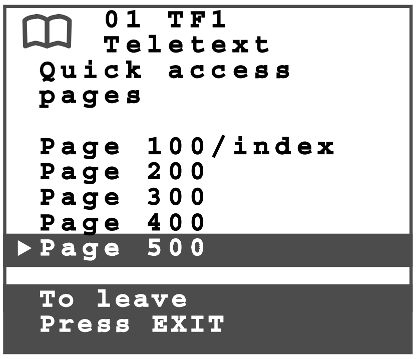
Some programmes are available with subtitles. The corresponding number is shown in the teletext index (English Teletext = 888).

Teletext 2.5 :
Your TV set is equipped with Teletext 2.5. In addition to providing improved graphics, this level of Teletext also allows the broadcaster to transmit additional columns.

If, when you access a page, the **?** symbol of Navigator turns red, this means that you can access additional texts. Press **ok** to access these texts.

Navigator :

📖	Cal up newspaper (see below)
⊽	STOP - stop a scrolling page
?	Hidden answers in games / Display additional pages
🔍	Zoom : press several times to see the top, bottom or entire screen.
▨	Clear background
N	To display the latest news at every update, if this option is available.



01 TF1
Teletext
Quick access pages

Page 100/index
Page 200
Page 300
Page 400
▸Page 500

To leave
Press EXIT

In Teletext mode	: stores the most frequently consulted pages and allows you to access them quickly.
In Toptext mode	: gives access to Chapters and Themes
In Fastext mode	: Gives access to headings

NEXTVIEW Electronic programme guide

If included

Your TV set is equipped to receive a "NEXTVIEW" Electronic Programme Guide
You can use this to :
- **consult the programmes of the stations included in the NEXTVIEW guide,**
- **make a list of programmes you wish to record or watch,**
- **programme your video recorder to record a programme,**
- **switch on your TV set automatically at the start of the programme you have indicated.**

Calling up NEXTVIEW

Press the blue button for direct access.

Caution : not all stations broadcast "NEXTVIEW".
On the left of the screen is the navigator which you can use to search through the guide.

The list of programmes is shown on the right.

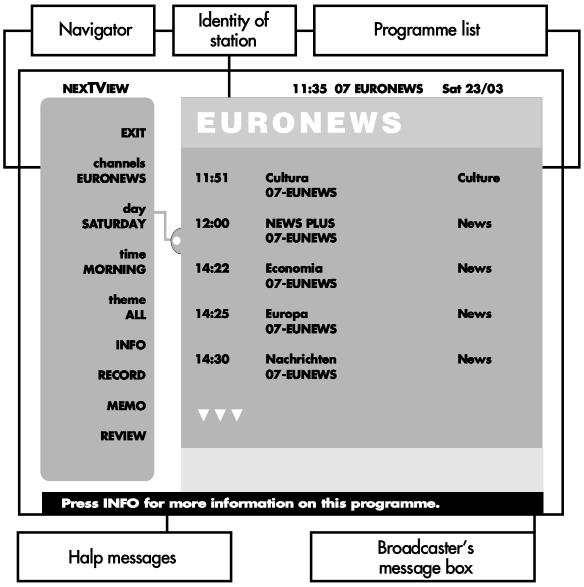
Press ok to switch from the list to the navigator.

Consulting the programme

- press the ◁ arrow button to activate the navigator,
- press the △▽ arrow buttons to select the day line,
- press ok to activate the day zone,
- press the ◁▷ arrow buttons to select the day for which you wish to know the programmes,
- press ok to confirm.

Follow the same procedure to define :
- the channel, time of day and theme (films, news, etc.)

The programmes selected appear in the list.


Navigator
Identity of station
Programme list
NEXTVIEW
EXIT
channels EURONEWS
day SATURDAY
time MORNING
theme ALL
INFO
RECORD
MEMO
REVIEW
EURONEWS
▼▼▼
Halp messages
Broadcaster's message box

11:35 07 EURONEWS Sat 23/03

11:51 Cultura 07-EUNEWS Culture
12:00 NEWS PLUS 07-EUNEWS News
14:22 Economia 07-EUNEWS News
14:25 Europa 07-EUNEWS News
14:30 Nachrichten 07-EUNEWS News

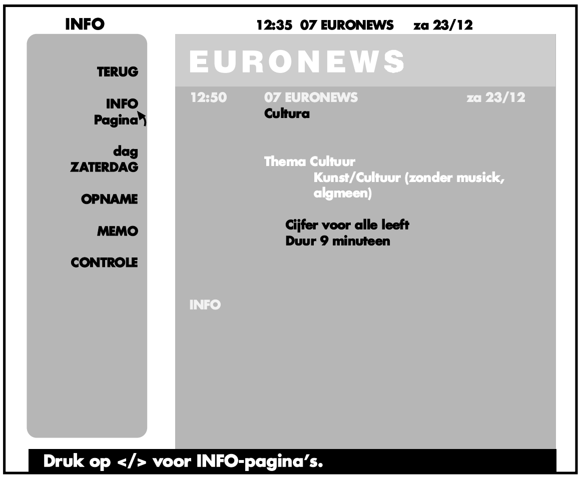
Press INFO for more information on this programme.

Information

For further information about a programme :
- press the ▷ arrow button to activate the list,
- press the △▽ arrow buttons to select a programme,
- press the yellow **info** button.

If several pages of information are available, the Page line will appear.

Select Page in the navigator with the △▽ arrow buttons and select the desired page with the ◁▷ arrow buttons.


INFO
TERUG
INFO Pagina
dag ZATERDAG
OPNAME
MEMO
CONTROLE
EURONEWS
INFO

12:35 07 EURONEWS za 23/12

12:50 07 EURONEWS za 23/12
Cultura

Thema Cultuur
Kunst/Cultuur (zonder musick, algmeen)

Cijfer voor alle leeft
Duur 9 minuteen

Druk op </> voor INFO-pagina's.

Recording :

This function is only available if you have connected a video recorder with a NEXTVIEW link to the SCART socket of your TV set and if the time and the date have been properly set on both the TV and the video recorder.
You can use the "NEXTVIEW link" function to automatically transfer channel setting information from your TV set to the video reorder.
This allows you to store the programmes in the same order on your TV and video recorder. The video recorder must be switched on, (but not recording) or in standby.

Select a programme from the list, then select **RECORD** in the navigator and press **ok** to confirm.
The video recorder is programmed automatically.
You can only cancel the recording on the video recorder!

Messages inform you whether the transfer has been carried out correctly. Follow the instructions given in these messages.
If you press the exit button when an error message is displayed, the video recorder will not be programmed.

Memorise

This function is only active if the time and date have been correctly set.

If you wish to be reminded that a programme is starting while you are watching another channel, select this programme from the list and select **MEMORISE** in the navigator. Press **ok** to confirm.

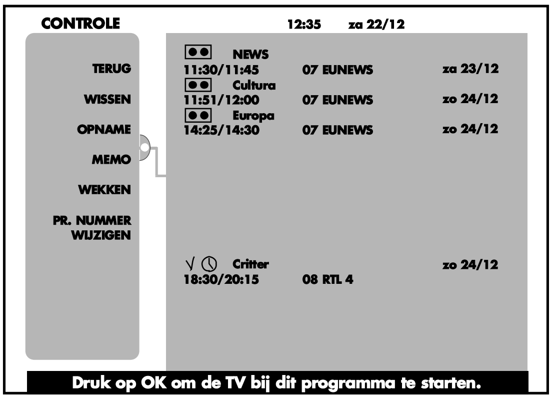
If the list is full, erase one of the previous programmes before memorising or recording a new programme (see REVIEW).
If there are problems identifying the channel, follow the instructions which are automatically displayed.

Review

To display the programmes and recording in memory, select the **REVIEW** line in the navigator and press **ok** to confirm.

You can then :

- programme your TV set to switch on automatically when your selected programme begins:
  - select the programme in the list
  - select the **WAKE UP** line in the navigator
  - press **ok** to confirm.



CONTROLE 12:35 za 22/12

NEWS
11:30/11:45 07 EUNEWS za 23/12
Cultura
11:51/12:00 07 EUNEWS zo 24/12
Europa
14:25/14:30 07 EUNEWS zo 24/12

√ Critter zo 24/12
18:30/20:15 08 RTL 4

Druk op OK om de TV bij dit programma te starten.

The TV must be in standby. It will switch on when the selected programme begins.

- erase a programme from the list:
  - select the programme in the list
  - select the **CLEAR** line in the navigator,
  - press **ok** to confirm.

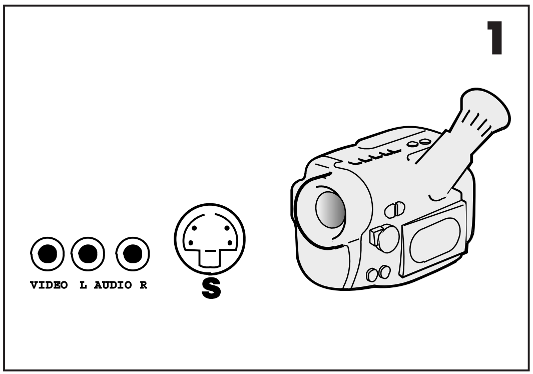
Connection of Other Appliances

Connecting a video camera

The CINCH Video and Audio [1]* sockets allow you to connect a VHS or 8mm video camera to your TV set.

The S socket and the CINCH Audio [1]* sockets allow the connection of an S-VHS or Hi-8 video camera.

To use the connected appliance, press the ***av*** *button repeatedly until programme AV3 is selected. When the connected appliance is switched off, the TV set will remain tuned to AV3. Use the remote control number buttons to select the desired programme.*

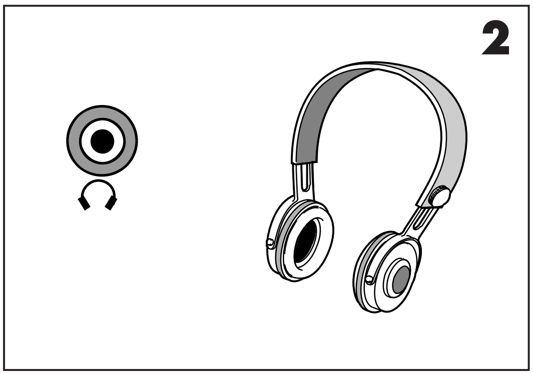


* If included

Connecting headphones

The headphone socket [2]* allows you to connect a set of headphones or earplugs to your TV set.

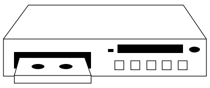
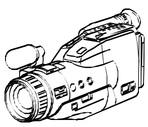
Connecting a set of headphones does not mute the sound from the loudspeakers of the TV set. Pressing the 🔇 button will mute the sound through the speakers but not through the headphones.



* If included

Additional possibilities

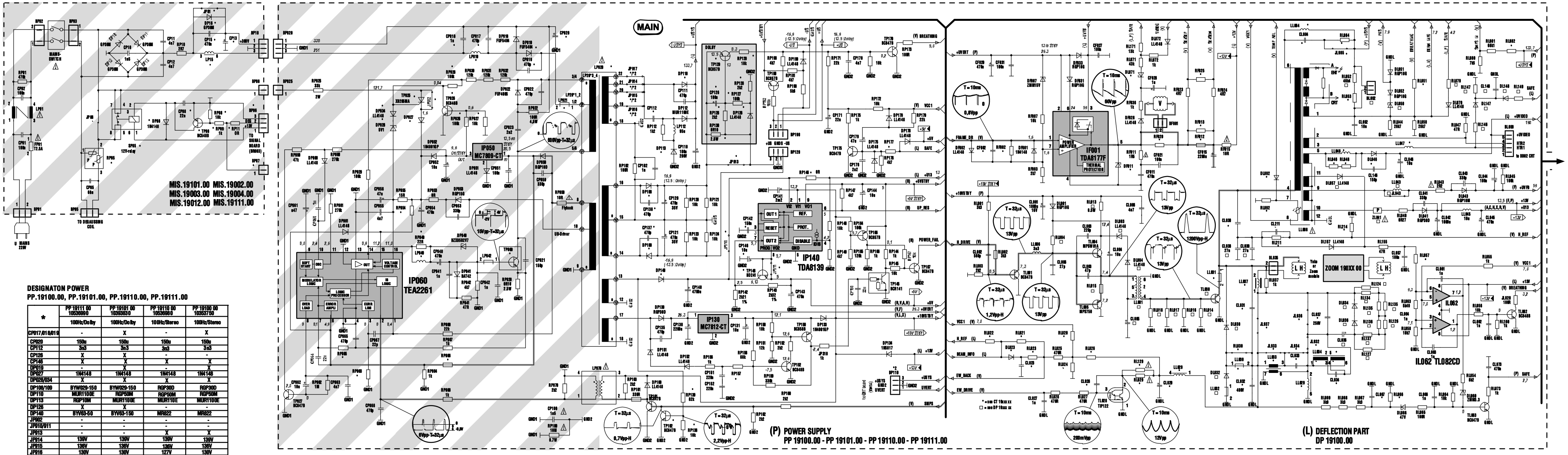
Copying cassettes :
Connect the video recorder in **recording mode** to the AV2 socket.
Connect the appliance in **playback** mode to :
the AV1 video adapter socket (video recorders)
the CINCH AV3 sockets (video cameras) - see table below.

PLAYBACK		RECORD		SELECT PROGRAMME
Appliance	**SCART**	**Appliance**	**SCART**	
Video recorder 	AV1	Video recorder or camera	AV2	AV1
Video camera 	AV3 (CINCH or S-Video)	Video recorder or camera	AV2	AV3

Connecting a Hi-Fi amplifier

If you wish to connect a Hi-Fi amplifier to your TV set, connect it to the CINCH Audio sockets [situated on the rear of the set] using a CINCH-CINCH lead.

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA



DESIGNATON POWER
PP.19100.00, PP.19101.00, PP.19110.00, PP.19111.00

*	PP 19111 00 10536990	PP 19101 00 10393830	PP 19110 00 10536980	PP 19100 00 10353750
	100Hz/Dolby	100Hz/Dolby	100Hz/Stereo	100Hz/Stereo
CP017/018/019	-	X	-	X
CP020	150u	150u	150u	150u
CP112	3n3	3n3	3n3	3n3
CP126	X	X	-	-
CP146	X	X	X	X
DP019	-	X	-	X
DP027	1N4148	1N4148	1N4148	1N4148
DP028/034	X	X	X	X
DP108/109	BYW029-150	BYW029-150	RGP30D	RGP30D
DP110	MUR1100E	RGP50M	RGP50M	RGP50M
DP113	RGP10M	MUR1100E	MUR110E	MUR1100E
DP126	X	X	-	-
DP140	BYV63-50	BYV63-150	MR822	MR822
JP902	-	-	-	-
JP910/911	-	-	-	-
JP913	-	-	X	X
JP914	139V	139V	139V	139V
JP915	136V	136V	136V	136V
JP916	130V	130V	127V	130V
JP917	142V	142V	142V	142V
LP019	-	105u	-	105u
LP020	10397920	10397920	10397920	10459670
LP021	-	X	-	X
LP040	2u2	2u2	2u2	2u2
RP026/028	X	X	X	X
RP027	X	X	X	X
RP040	1/2W	1/2W	1/2W	1/2W
RP054	6R8	6R8	6R8	6R8
RP063	-	47k	-	47k
RP065	11k	12k1	11k	12k1
RP066	4k22	3k57	4k22	3k57
RP126/128	X	X	-	-
RP127/129	X	X	-	-
RP130	X	X	-	-
RP138/139	X	X	X	X
RP146	X	X	X	X
RP157	130k	130k	130k	130k
RP177	12k	12k	12k	12k
TP025/026	X	X	X	X
TP060	BUL810TH	BUL810TH	BUL810TH	BUL810TH
TP129	X	X	-	X
TP146	X	X	X	X
TP162	-		X	X

X Inserted
– Not inserted

*	different comp.	BP06	BP07	CP08	CP13	CP15	DP08	DP16	JP01	JP08	LP15	RP05	RP08	RP09	SP05	TP08
MIS.19101	100Hz/+relay	X	X	X	150u	X	X	X	—	—	1.5mH	18R	X	X	X	X
MIS.19002	50Hz	—	—	—	100u	X	—	X	—	X	3mH	25R	—	—	—	—
MIS.19003	50Hz/+relay	X	X	X	100u	X	X	X	—	—	3mH	18R	X	X	X	X
MIS.19004	50Hz/45W Pict.Pow.	—	—	—	—	X	—	X	—	X	3mH	25R	—	—	—	—
MIS.19012	50Hz	—	—	—	100u	—	—	—	X	X	—	25R	—	—	—	—
MIS.19111	100Hz/+relay	X	X	X	150u	—	X	—	X	—	—	18R	X	X	X	X

X Inserted
– Not inserted

▨ Part of board connected to mains supply.
Partie du chassis reliée au secteur.
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectada a la red.

⚠ Use isolating mains transformer
Utilise un transformateur isolateur du secteur
Einen Trenntrafo verwenden
Utilizar un transformador aislador de red
Utilizzare un transformatore per isolarvi dalla rete

Note :
Power Supply primary circuit measurements.
- Use only (GND1) connection point.

Attention :
Mesure dans le bloc alimentation
- Utiliser la masse du bloc alimentation (GND1).

Achtung :
Bei Messungen im Primärnetzteil
- Primärnetzteilmasse verwenden (GND1).

Attentionze :
misure nell'alimentatore primario
- usare massa alimentazione primario (GND1).

Cuidado :
Medida en el bloque de alimentacion
- Utilizar la masa del bloque de alimentacion (GND1).

⚠ Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
durante la ripazione usare componenti originali
Pieza de seguridad
Utilice solo piezas originales

	Deflection - Basic Partlists
☐	100Hz DP 19100 00 10 34 99 80
BL052	—
CL005	470u/16V
CL036	2u2/250V
CL038	—
CL039	54n
CL148	220n
DL003/04	—
DL030	DTV32F-1500
DL032	BYT08-400
DL034/036	BYT01-200
DL050	BZX85C22
DL057	—
DL147/148	LL4148
JL943	—
LL001	10 46 87 60
LL030	—
LL032	10 25 84 40
LL043	22u
RF015	PTC-15R
RL004	1k
RL013	4R7
RL014	40R2
RL015	1R
RL016/17	40R2
RL018	40R2
RL070	15k
RL071	43k
RL124/127	7k5
RL134/137	7k5
RL146	100R
RL147	4k7
RL149	1k
TL030	ON4977
ZL041	MP160

*	Deflection - Picture Tube related Partlists					
	CT 19101 34	CT 19105 37	CT 19152 37	CT 19111 34	CT 19112 34	CT 19151 34
	10 36 28 80	10 35 15 30	10 52 06 10	10 44 48 10	10 47 54 60	10 52 06 00
	100Hz 25-28"MP 4/3	100Hz 29"SF 4/3	100Hz-MCU 29"SF 4/3	100Hz 28"SF 16/9	100Hz 32"SF 16/9	100Hz-MCU 32"SF 16/9
CF002	680p	680p	680p	2n2	2n2	2n2
CL023	—	—	—	—	—	—
CL028	56n	1n	1n	56n	56n	56n
CL029	470n/63V	3u3/63V	3u3/63V	470n/63V	470n/63V	470n/63V
CL030	1n9/2KV	1n9/2KV	1n9/2KV	2n7/2KV	2n7/2KV	2n7/2KV
CL031	11n6/2KV	11n6/2KV	11n6/2KV	11n6/2KV	11n6/2KV	11n6/2KV
CL032	33n/400 V	24n/400V	24n/400V	33n/400V	33n/400V	33n/400V
CL033	560n/250V	—	—	680n/250V	680n/250V	680n/250V
CL034	12n/400V	12n/400V	12n/400V	12n/400V	12n/400V	12n/400V
CL037	680n/250V	410n/400V	410n/400V	560n/250V	560n/250V	560n/250V
CL067	100n/100V	—	—	100n/100V	100n/100V	100n/100V
CL084	3n9/400V	3n9/400V	3n9/400V	3n9/400V	3n9/400V	3n9/400V
CL211	470p	470p	470p	470p	470p	470p
DF011	10 36 82 10	10 36 82 10	10 36 82 10	10 36 82 10	10 36 82 10	10 36 82 10
DL023	—	—	—	—	—	—
DL046	MUR160	MUR160	MUR1100E	MUR160	MUR160	MUR1100E
DL071	BZX55C33	BZX55C33	BZX55C33	BZX55C24	BZX55C24	BZX55C24
DL092	1N4148	1N4148	1N4148	1N4148	1N4148	1N4148
JL932	—	—	—	—	—	—
JL933	—	×	×	—	—	—
JL934	—	×	×	—	—	—
JL936	—	—	—	—	—	—
JL937	—	—	—	—	—	—
JL985	×	×	×	×	×	×
LL008	10 46 03 60	10 46 80 70	10 51 08 70	10 46 81 60	10 46 81 60	10 52 03 30
LL029	10 34 76 50	10 15 42 70	10 15 42 70	10 34 76 50	10 34 76 50	10 34 76 50
LL030	—	LFBEAD 90R	LFBEAD 90R	—	—	—
LL031	LFBEAD 90R	JUMPER	JUMPER	LFBEAD 90R	LFBEAD 90R	LFBEAD 90R
LL033	10 34 76 60	—	—	10 34 76 60	10 34 76 60	10 34 76 60
LL034	10 15 32 70	10 15 32 70	10 15 32 70	10 15 32 70	10 15 32 70	10 15 32 70
LL037	4u2	3u	3u7	4u	4u	4u2
LL046	47u	47u	22u	47u	47u	22u
LL047	13u5	13u5	13u5	13u5	13u5	13u5
LL084	29u5	29u5	29u5	29u5	29u5	29u5

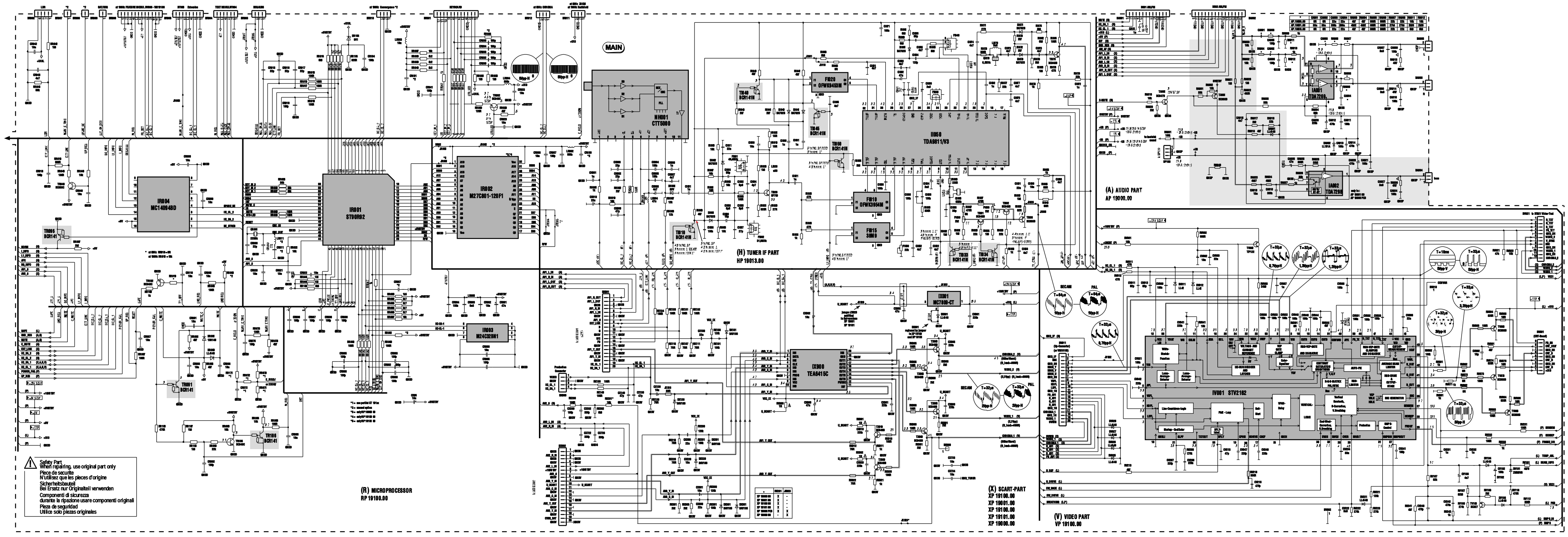
*	Deflection - Picture Tube related Partlists					
	CT 19101 34	CT 19105 37	CT 19152 37	CT 19111 34	CT 19112 34	CT 19151 34
	10 36 28 80	10 35 15 30	10 52 06 10	10 44 48 10	10 47 54 60	10 52 06 00
	100Hz 25-28"MP 4/3	100Hz 29"SF 4/3	100Hz-MCU 29"SF 4/3	100Hz 28"SF 16/9	100Hz 32"SF 16/9	100Hz-MCU 32"SF 16/9
RF002	10k	10k	10k	10k	10k	10k
RF012	1R	1R	1R	1R5	1R5	1R5
RF013	1R	1R	1R	1R82	1R82	1R82
RF020	180R	270R	270R	—	—	—
RF025	39R	43R	43R	150R	150R	150R
RL020	4k64	7k15	7k15	4k64	4k64	4k64
RL021	—	—	—	—	—	—
RL023	—	—	—	—	—	—
RL024	2k67	4k02	4k02	2k67	2k67	2k67
RL026	36k5	61k9	61k9	36k5	36k5	36k5
RL029	—	2R2	2R2	—	—	—
RL046/48	3k3	3k3	3k3	3k3	3k3	3k3
RL051	270k	270k	270k	270k	270k	270k
RL053	6k34	8k66	8k66	6k34	6k34	6k34
RL057	26k1	27k4	56k2	47k5	47k5	56k2
RL066	—	2k2	2k2	—	—	—
RL082	59k	61k9	61k9	59k	59k	59k
RL084	—	—	—	—	—	—
RL092	4k7	4k7	4k7	4k7	4k7	4k7
RL129	2R2	—	—	2R2	2R2	2R2
RL211	6k8	6k8	6k8	6k8	6k8	6k8
RL214	—	—	—	—	—	—
ZOOM MODULE	—	—	—	—	—	—

Note : the last two numbers of the CT xxxx part list name indicates the system voltage.
e.g. CT 19005 31 Usys 131V →

Nota: Los dos últimos números de la denominación CT xxxx, indica la tensión Usys
e.g. CT 19005 31 Usys 131V →

X Inserted
– Not inserted

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA

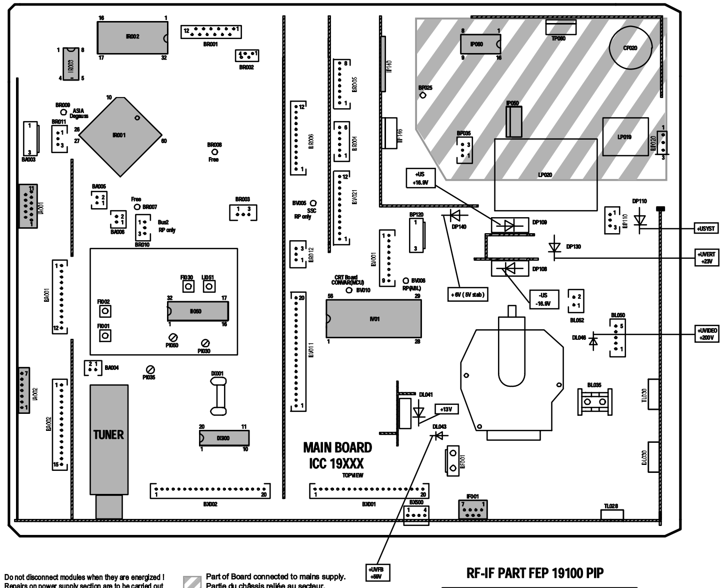

MAIN
IR004 MC14094BD
IR001 ST90R92
IR002 M27C801-120F1
IR003 M24C32BN1
TR005 BCR141
TR001 BCR141
TR106 BCR141
(R) MICROPROCESSOR
RP 19100.00
NH001 CTT5000
TB40 BCR141N
TB45 BCR141N
TB50 BCR141N
TB10 BCR141N
TB33 BCR141N
TB34 BCR141N
FB20 OFWK3953M
IH050 TDA9811/V3
FB10
FB15
(H) TUNER IF PART
HP 19013.00
IA001 TDA7269
IA002 TDA7269
(A) AUDIO PART
AP 19000.00
IX000 TEA6415C
IX001 MC7805-CT
(X) SCART-PART
XP 19100.00
XP 19001.00
XP 19100.00
XP 19101.00
XP 19000.00
IV001 STV2162
SECAM
PAL
(V) VIDEO PART
VP 19100.00

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
durante la ripazione usare componenti originali
Pieza de seguridad
Utilice solo piezas originales

ICC19 100 Hz
First issue 09 / 97

MC-Service

LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - SERVICE LAGEPLAN - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES


MAIN BOARD
ICC 19XXX
TOPVIEW
TUNER
IR001
IR002
IR003
BR001
BR002
BR003
BR005
BR006
BR007
BR008
Free
BR009
ASIA Degauss
BR010
Bus2 RP only
BR011
BR012
BA001
BA002
BA003
BA004
BA005
BA006
IA001
IA002
FI001
FI002
FI030
LI051
II050
PI050
PI030
PI035
IX001
IX300
BX001
BX002
BX500
BV001
BV005
SSC RP only
BV006
RP(ABL)
BV010
CRT Board CONVAR(MCU)
BV011
BV021
IV01
IP060
TP060
CP020
BP025
IP050
BP035
LP019
LP020
BP020
BP110
BP120
IF140
IF146
+US +16.9V
-US -16.9V
+ 6V (5V stab)
DP140
DP109
DP108
DP130
DP110
+USYST
+UVERT +23V
+UVIDEO +200V
BL050
BL052
DL046
BL035
TL030
DL030
DL041
DL043
+13V
BF001
IF001
TL028
+UVFB +59V

⚠ Do not disconnect modules when they are energized ! Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch mode) qu'au travers d'un transformateur d'isolement.

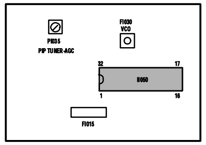
Module nicht bei eingeschaltetem Gerät entfernen ! Servcearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare i moduli quando sono alimentati ! effetuare riparazioni sulla sezione alimentatore solo con transformatore separatore.

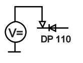
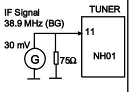
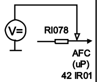
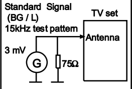
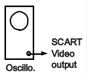
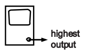
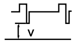
No desconectar los módulos cuando están activados ! Las reparaciones en la sección de alimentación de energia deben ser ejecutadas solamente con un transformador de separacíon.

▨ Part of Board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseite des Netzteils
Parte del pannello collegato alla rete di alimentazione
Parte del chasis conectada a la red

RF-IF PART FEP 19100 PIP


PI035
PIP TUNER-AGC
FI030
VCO
32
17
II050
1
16
FI015

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

U Sys	SERVICE MODE	Standard TV - Settings : OMA Position TV to AV1 : Black test pattern	 DP 110	
IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) 30 mV 75Ω TUNER 11 NH01	 RI078 AFC (uP) 42 IR01	Adjust FI30 / PI54 for 2,5VDC +/-0.1V
VIDEO-LEVEL Alignment	PI030 PI035	Standard Signal (BG / L) 15kHz test pattern  3 mV 75Ω TV set Antenna	 Oscillo. SCART Video output	Adjust PI030 : standard BG Adjust PI035 : standard L for V = 0,7 Vpp (Black/white level)
U G2 METHOD 1 Measurement method	G2 potentiometer (SFB) or R2 (NSDFB 19500) according to models	Standard TV - Settings : OMA Position TV to AV1 : Black test pattern	 highest output CRT 1910X (100Hz) : R signal : IB01 Pin 15 G signal : IB03 Pin 15 B signal : IB02 Pin 15	 V 1 - Adjust VG2 : V= 160V +/- 5 V 2 - Adjust Focus 3 - Adjust VG2 : V= 160V +/- 3V
METHOD 2 Cut-off counter method	SERVICE MODE	Standard TV - Settings : OMA Position No test pattern (generated by internal text processor).		Initially set R_Cut-off and G_Cut-off to 80H. Select G2 Alignment in Service Mode Adjust the lowest value to: Select "Restore" in Service Mode and press "OK" to restore the cut-off values.
FOCUS	FOCUS	 Test pattern (standard values)		Sharp picture

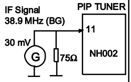
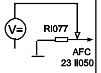
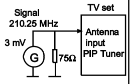
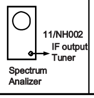
TUBE NAME	DESCRIPTION	Usys jumper	Usys
A66EGW83X122	4/3 28"MP	JP914	137V +/-0.5V
A66EHJ43X12	4/3 28" MP	JP915	134V +/- 0.5V
A66EHJ43X122	4/3 28" MP	JP914	137V +/- 0.5V
A68EGD038X322	4/3 29" SF	JP914	137V +/-0.5V
A80EJA16X122	4/3 33" MP	JP914	137V +/- 0.5V
A90AFX15X12	4/3 37" MP	JP914	137V =/-0.5V
W66EGV023X122	16/9 28" SF	JP915	134V +/- 0.5V
W66EGV023X122	16/9 28" SF (PANORAMA)	JP917	140V +/- 0.5V
W76EGV023X122	16/9 32"SF	JP915	134V+/- 0.5V
W76EGV023X122	16/9 32"SF (PANORAMA)	JP917	140V+/- 0.5V
W76EGX023X122	16/9 32"SF	JP915	134V +/- 0.5V
W76EGX023X878	16/9 32"SF	JP917	140V +/- 0.5V
W66LPQ356X99	EXTRA FLAT TUBE 16/9 28" XF/INV/VG/BSVM	JP917	140V +/- 0.5V
W76LPF350X97	EXTRA FLAT TUBE 16/9 32" XF/INV/VG/BSVM	JP917	140V +/- 0.5V

Tube Type	Value
A66EGW	60H
A66EHJ	50H
A68EGD	50H
A68EGV	50H
A80EJA	-
A90AFX	50H
W66EGV	50H
W76EGV	60H
W76EGX	60H
W66LPQ	50H
W76LPF	50H
W66EGX	50H

FOCUS ADJUSTMENT FOR EXTRA FLAT TUBE (XF) - REGLAGE FOCUS POUR LES TUBES EXTRA PLATS (XF) - FOKUS-EINSTELLUNG BEI EXTRA FLAT-BILDRÖHREN (XF) - REGOLAZIONE FUOCO PER TUBI EXTRA FLAT (XF) - AJUSTE DEL FOCO PARA T.R.C. EXTRAPLANO (XF)

FOCUS	TV : AV1 Test pattern Standard TV - Settings : ☼ + ◑ + ◐ = 50%		Sharp picture
FOCUS DFB	PN601 PN600	**GB** 1 - Turn PN601 fully anticlockwise. 2 - Using PN600 adjust the focus of the centre section of the top horizontal line i.e. finest line without "flare". 3 - Using PN601 adjust the focus of the vertical line at the edge of the screen i.e. finest line without "flare". 4 - Readjust the focus of the centre section of the top horizontal line with PN600 if necessary. **F** 1 - Tourner PN601 à fond dans le sens inverse des aiguilles d'une montre. 2 - Régler PN600 pour obtenir le centre de la ligne horizontale en haut d'écran la plus fine possible. 3 - Régler PN601 pour obtenir la ligne verticale au bord la plus fine possible. 4 - Retoucher PN600 sur le centre de la ligne horizontale en haut d'écran si cette dernière a été affectée par PN601. **D** 1 - Drehen Sie PN601 bis zum linken Anschlag. 2 - Stellen Sie mit PN600 die Schärfe in der Mitte der obersten horizontalen Zeile auf Maximum (ohne Nachzieheffekte) ein. 3 - Stellen Sie die Schärfe der vertikalen Linien in den Ecken auf Maximum (ohne Nachzieheffekte) ein. 4 - Falls notwendig, wiederholen Sie die Einstellung der Bildschärfe in der Mitte der obersten horizontalen Zeile mit PN600. **I** 1 - Ruotare PN601 in senso antiorario. 2 - Regolare la focalizzazione centrale della linea orizzontale nella parte alta dello schermo con PN600. Il più sottile possibile senza "flare". 3 - Regolare PN601 per avere le righe verticali ai lati dello schermo il più sottili possibile senza "flare". 4 - Regolare se necessario PN600 per avere un'ottima focalizzazione centrale della linea orizzontale nella parte alta dello schermo. **E** 1 - Girar PN601 totalmente en sentido antihorario. 2 - Ajustar el enfoque con PN600 para obtener la parte central de línea horizontal de la parte superior de la pantalla lo más fina posible. 3 - Ajustar PN601 para obtener las líneas verticales lo más finas posible y sin rebordes. 4 - Reajustar con PN600 el enfoque en el centro de la parte superior de la pantalla, si es necesario.	

RF / IF PART FEP 19100 PIP

IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) 30 mV 75Ω PIP TUNER 11 NH002	 RI077 AFC 23 II050	Adjust FI30 for 2,5VDC +/-0.1V
TUNER-AGC	PI050	 Signal 210.25 MHz 3 mV 75Ω TV set Antenna input PIP Tuner	 11/NH002 IF output Tuner Spectrum Analizer	Adjust PI050 : Maximum level Reduce level with PI50 about 10dB.

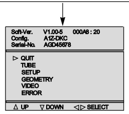
I - ENTER/EXIT SERVICE MODE - ENTREE/SORTIE DU MODE SERVICE - EIN-AUSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

SERVICE MODE (GB)

1 ACCESSING SERVICE MODE

TV Control Panel Access

- Turn "Off" the TV using the **ON/OFF** button.
- Press the **PR-** and **VOL-** buttons ,hold them down and switch "On" the TV with the **ON/OFF** button.
- After the normal switch on time the main service menu appears on the screen.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Note :

In service mode :
- *The child lock function is re-initialized*
- *The look function (PIN Number) is ignored.*
- *Clear any wake-up/sleep timers*
- *Pin 8 of the scart plug has to be ignored.*
- *AV- Link WSS detection , EPG and Teletext have to be disabled.*
- *Automatic stand-by functions, in case of no antenna signal have to be disabled.*
- *Contrast, colour, brightness : factory settings.*
- *Sharpness : middle (nominal)*
- *Contrast expander to low.*
- *Install Mode disabled.*
- *Default format and zoom..*

2 TEMPORARY EXIT FROM SERVICE MODE

- Press Exit on the Remote control.
- Everyday use menu can be accessed via Menu button.

- Field Service Menu can be re-entrered via Blue button.

3 EXITING FROM SERVICE MODE

Remote Control / **TV control panel**
- Go to the point QUIT in the Field service Mode main menu.
- Press «<», «OK» or «>» button / - Press «VOL.+»button
- TV mode.

on/off key or Stand-by
- Stand-by function or «off» with on/off key.

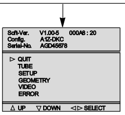
Values or adjustments are no stored before exiting from service mode will not be written into the NVM

MODE SERVICE (F)

1 ACCES AU MODE SERVICE

Accès avec le clavier du téléviseur

- Arrêter le TV avec la touche **M/A.**
- Tout en appuyant sur les touches **PR -** et **VOL -**, mettre le TV en service à l'aide de la touche **M/A.**
- Maintenir enfoncées les touches **PR -** et **VOL -**.
  Le menu suivant apparaît.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Note :

En mode service:
- *Le verrouillage parental est effacé (réinitialisé).*
- *La fonction de verrouillage (Pin number) est ignorée.*
- *La programmation des heures «reveille/matin» est annulée.*
- *Possibilité de passer en mode service avec commutation lente active.*
- *AV- Link , la détection WSS, l'EPG et le Vidéotexte ne sont pas validés.*
- *La fonction de stand-by automatique en cas d'absence de signal d'antenne n'est pas validée.*
- *Les valeurs de réglages usine sont affectées au contraste, à la couleur et à la lumière.*
- *Le contour est appelé à sa valeur moyenne.*
- *L'expansion contraste est au niveau bas.*
- *Le mode d'installation et l'ambiance «Light sensor» ne sont pas valdes.*
- *Zoom et format ignorées.*

2 SORTIE TEMPORAIRE DU MODE SERVICE

- Utiliser la touche Exit de la télécommande.
- Le menu utilisateur peut être accessible via la touche «Menu».

- Pour entrer à nouveau dans le mode service utiliser la touche bleue.

3 SORTIE DEFINITIVE DU MODE SERVICE

télécommande / **clavier du téléviseur**
- Aller au point «QUIT» dans le menu principal du mode service.
- Appuyer sur «<», «OK» ou «>» / -Appuyer sur «VOL+»
- Mode TV.

Inter M/A ou Stand-by
- Foncion Stand-by ou «off» par M/A

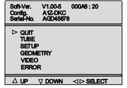
Les valeurs ou réglages non mémorisées avant la sortie ne seront pas écrites en NVM.

SERVICE - MODE (D)

1 EINSTIEG IN DEN SERVICE MODE

Zugriff über die Tastatur des Fernsehgeräts

- Fernsehgerät über die EIN/AUS - Taste ausschalten.
- Gleichzeitig die Tasten PR- und VOL- drücken und den TV über die EIN/AUS-Taste einschalten.
- Die Tasten PR- und VOL - gedrückt halten.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Anmerkung :

Im SERVICE MODE :
- *wird die Sperrfunktion (PIN-Nummer) ignoriert und die Kindersicherung gelöscht (reinitialisiert).*
- *werden alle Ein- und Ausschaltzeitgeber gelöscht.*
- *wird die SCART - Scaltspannung ignoriert.*
- *werden AV- Link WSS, EPG und Teletext gesperrt*
- *wird die Automatische Abschaltung bei fehlendem Antennensignal gesperrt.*
- *werden Kontrast, Farbe und Helligkeit auf standardwerte gesetzt.*
- *wird die bildschärfe auf Mittelstellung (nominal) gesetzt.*
- *wird der Kontrast-Expander auf "gering.." gesetzt.*
- *wird der Installations Modus gesperrt.*
- *wird das Standardformat bzw. der Standard-Zoom-modus gewählt.*

2 VORÜBERGEHENDES VERLASSEN DES SERVICE MODE

- Auf der Fernbedienung EXIT drücken.
- Mit der Taste Menü gelangen Sie zum Menü Übersicht

- Mit der blauen Taste gelangen sie zum Service-Menü.

3 ENDGÜLTIGES VERLASSEN DES SERVICE MODE

Fernbedienung / **TV-Bedienfeld**
- Wenn der Zeiger im Hauptmenü des Service-Modus auf BEENDEN steht
- Taste «<», «OK» oder «>»drücken / -Taste «VOL+» drücken
- TV Modus

EIN /Aus - Taste
- Mit Standby-Funktion oder EIN/AUS - taste ausschalten

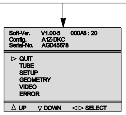
Werte und Einstellungen, die nicht vor dem Verlassen des Service-Modus gespeichert wurden, werden nicht in den Permanentspeicher übernommen

SERVICE - MODE (I)

1 ACCESSO AL SERVICE MODO

tramite i comandi del televisore

- Spegnere il TV mediante il pulsante ON/OFF.
- Premere i tasti **PR-** e **VOL-** accendendo il TV con il pulsante ON/OFF.
- Premere i pulsanti **PR -** e **VOL -**.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Nota :

Nel service mode:
- *la funzione Blocco (Numero Pin) viene ignorata e la funzione Blocco Bambini è reinizializzata.*
- *Cancellare la programmazione sveglia*
- *Il piedino 8 della scart deve essere ignorato.*
- *I riconoscimenti AV-Link WSS, EPG e televideo devono essere disabilitati.*
- *Funzione automatica di standby, nel caso di mancanza del segnale d'antenna deve essere disabilitata.*
- *Contrasto, colore, luminosità : regolazioni di fabrica.*
- *Nitidezza: media (nominale)*
- *Espansore contrasto troppo basso.*
- *IModo Install disabilitato.*
- *Formato default e zoom.*

2 USCITA TEMPORANEA DAL SERVICE MODE

- Premere Exit sul telecomando.
- Al menu di uso quotidiano si accede attraverso il pulsante Menu.

- É possibile rientrate nel Menu Field Service attraverso il pulsante Blue.

3 USCIRE DAL SERVICE MODE

telecomando / **Panello controllo TV**
- Andare al punto QUIT nel Modo Field service del Menu principale
- Premere «<»,«OK» o «>» / - Premere «VOL.+»
- Modo TV.

Tasto on/off di
- Funzione Stand-by o «off» con il tasto on/off

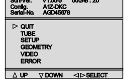
Valori e regolazioni non vengono memorizzati prima di uscire dal Modo service e non vengono scritti nell'NVM

MODO SERVICIO (E)

1 ACCESO AL MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA:PARADA.
- Pulse los botones **PR -** y **VOL -** y sin soltarlos,pulsar la tecla MARCHA:PARADA.
- Libere los botones **PR -** y **VOL -** .


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Nota :

En modo servicio:
- *Se ignora la función de bloqueo y se inicializa la función "cerradura ninos".*
- *Anula todos las horas programadas*
- *La patilla 8 del SCART es ignorada*
- *La detección WSS AV Link, EPG, y Telexto son desactivados.*
- *El apagado automático en caso de ausencia de señal de antena es desactivado.*
- *El contraste,color y brillo son puestos a los valores de fábrica.*
- *la nitidez es puesta al punto medio.*
- *La expansión de contrast al nivel bajo*
- *Modo Instalación es desactivado.*
- *Zoom y formato ignorados.*

2 SALIDA TEMPORAL DEL MODO SERVICIO

- Pulse Salir en el mando a distancia
- Con el botón Menu puede acceder al menú de uso cotidiano.

- Puede entrar al Menú Servicio con el botón azul.

3 SALIDA DEL MODO SERVICIO

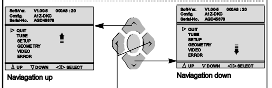
telecomando / **Panel de control TV**
- Vaya al punto QUIT del menú principal de modo Servicio
- Pulse el botón «<»,«OK» o «>» / - Pulse el botón«VOL.+»
- Modo TV.

Tecla on/off de
- Función Stand-by o desconexión (off) con tecla on/off.

Los valores o ajustes no se guardan antes de salir del modo servicio y no se escriben en el NVM

II - NAVIGATION INSIDE THE SERVICE MODE - DEPLACEMENT DANS LE MODE SERVICE SUCHE IN SERVICE MODE - OPZIONI NEL SERVICE MODE - BUSQUEDA EN MODO SERVICIO

1 REMOTE CONTROL - TELECOMMANDE - FERNBEDIENUNG TELECOMANDO - MANDO A DISTANCIA

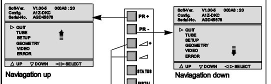

Soft-Ver. V1.00-5 000A8 :20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT
Naviagation up
Naviagation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

- "Change" value
- Wert "änden"
- "Cambiare" valore
- "Cambiar" valor

> → VALUE ↗
< → VALUE ↘

2 TV CONTROL PANEL - CLAVIER TV - TASTATUR DES FERNSEHGERÄTS - COMANDI DEL TELEVISORE -


Soft-Ver. V1.00-5 000A8 :20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT
PR +
PR -
STATUS
INSTAL
Naviagation up
Naviagation down

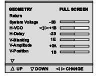
- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

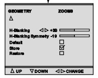
- "Change" value
- Wert "änden"
- "Cambiare" valore
- "Cambiar" valor

Vol. + → VALUE ↗
Vol. − → VALUE ↘

Changing page - Changement de page
Seitenwechsel - Cambiare Pagina - Cambio de página

End of page Fin de page Am Seitenende Fine della pagina Fin de página	Beginning of Page Début de page Am Seitenanfang Inzio della pagina Comienzo de página


GEOMETRY FULL SCREEN
Return
System Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

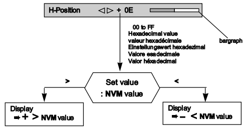

GEOMETRY ZOOM0
△
H-Blanking ◁▷ +3B
H-Blanking Symmetry -19
Default
Store
Restore
△ UP ▽ DOWN ◁▷ CHANGE

« ▽ »
Indicates a following page
Signifie qu'une page suit.
Bedeutet, daß eine Seite folgt
Indica una pagina seguente
Indica una página siguiente

« △ »
Indicates a preceding page
Signifie qu'une page précède.
Bedeutet, daß eine Seite vorangeht
Indica una pagina precedente
Indica una página precedente

- The menu turns the page when the cursor reaches the arrow.
- Amener le curseur sur la ligne repérée par« ▽ » ou « △ » pour passer à la page qui précède ou qui suit.
- Cursor nach « ▽ »,« △ » zum Seitenwechsel
- Il cursor su « ▽ »,« △ » cambia pagina.
- Cursor en « ▽ » ,« △ » cambia las páginas

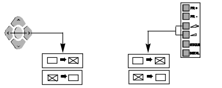
3 DISPLAYING THE VALUE OF THE SETTING - AFFICHAGE DES VALEURS - ANZEIGE DES EINSTELLUNGSWERTS VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE - VISUALIZACION DEL VALOR DE AJUSTE


H-Position ◁▷ + 0E
00 to FF
Hexadecimal value
valeur hexadécimale
Einstellungswert hexadezimal
Valore esadecimale
Valor héxadecimal
bargraph
Set value
: NVM value
>
<
Display
➡+ > NVM value
Display
➡– < NVM value

4 TOGGLE FUNCTIONS - VALIDATION DES FONCTIONS EIN-UND AUSSCHALT FUNKTIONEN - FUNZIONI DI COMMUTAZIONE - FUNCION CONMUTACION

To enable a function check (tick) ☒ the box.
Pour valider une fonction cocher ☒ la case correspondante
Zum Implementieren einer Funktion das Kontrollkästchen ☒ aktivieren (ankreuzen)
Per implementare una funzione di verifica, (vistare) ☒ la casella
Para poner en fucionamiento una función verifique (señale) ☒ la casilla

☒ : Implemented function ☐ : No implemented function


☐ ➡ ☒
☒ ➡ ☐
☐ ➡ ☒
☒ ➡ ☐
PR +
PR -
STATUS
INSTAL

5 STORING VALUES IN MEMORY - MEMORISATION DES VALEURS - SPEICHERN DER WERTE - MEMORIZZAEZ I VALORI - VALORES ALMACENADOS EN LA MEMORIA

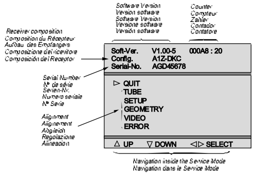
After setting, the values are stored in NVM.
Après réglages les valeurs sont mémorisées en NVM.
Nach dem Einstellen werden die Werte im NVM gespeichert.
Dopo la regolazione i valori vengono memorizzati in NVM.
Después del ajuste, los valores son almacenados en NVM

The box ☐ becomes ☒
During alignment, values are temporarily stored in RAM.
En cours d'alignement les valeurs sont mémorisées temporairement en RAM
Während des Abgleichs werden die Werte vorübergehend im RAM gespeichert
Durante l'allineamento i valori vengono memorizzati provvisoriamente sulla RAM
Durante el alineamento, los valores son almacenados temporalmente en RAM

Store ➡	Copies RAM values into NVM Copie la valeur RAM en NVM Kopieren des Werts von RAM nach NVM Copiare i valori RAM in NVM Copiar valores RAM en NVM
Restore ➡	Copies all values from NVM into RAM. Copie toutes les valeurs des données NVM en RAM Kopiert alle NVM-Datenwerte in den RAM Copiare tutti i valori da NVM sulla RAM Copia todos los valores de NVM a RAM
ROM Default ➡	All the default values of a page in use are stored in RAM. L'ensemble des valeurs par défaut d'une page courante est chargé en RAM. Sämtliche Standardwerte der aktuellen Seite werden im RAM geladen Tutti i valori di default di una pagina in uso vengono memorizzati sulla RAM Todos los valores por defecto de la página en curso están almacenados en RAM.

III - LITE-MENU FOR FIELD SERVICE MODE - MENUS DU MODE SERVICE

1 MAIN MENU - MENU PRINCIPAL


Software Version
Version software
Software Version
Versione software
Versión software
Counter
Compteur
Zahler
Contador
Contatore
Receiver composition
Composition du Récepteur
Aufbau des Empfangers
Composizione del ricevitore
Composición del Receptor
Serial Number
N° de série
Serien-Nr.
Numero seriale
N° Serie
Alignment
Alignement
Abgleich
Regolazione
Alineación
Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Búsqueda en el Modo Servicio

TV CONFIGURATION - CONFIGURATION DU TV - GERÄTEKONFIGURATION - CONFIGURAZIONE DEL TV - CONFIGURACIÓN Y TV

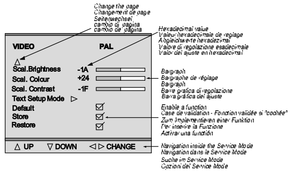
Config. A1Z-DKC

Character 1 : Tube type : «A»= 4/3 , «W» =16/9
Character 2 : Chassis type : «5» = 50Hz, «1»= 100 Hz
Character 3 : Zoom available : «Z»=yes, «-»=not
Character 4 : Ambiant Sensor : «S»= detected, «-»= not
Character 5 : Dolby : «D»=detected, «-»= not
Character 6 : AV Link detected : «K»=IR link detected, «-»= not
Character 7 : Password mode: «C»= Password stored, «-»= not

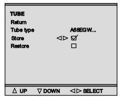
TIME COUNTER - COMPTEUR DE TEMPS - ZÄHLER - CONTATORE - CONTADOR

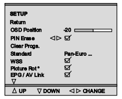
The counter indicates the TV's number of service hours.It counts from to 0 to 65535 hours. The display is hexadecimal.
Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.
Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb ist. Die Anzeige ist hexadezimal.
Il contatore indica il numero di ore di servizio del TV. Puo' contatore da 0 a 65535. La visualizzazione è esadecimale.
El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU - SOUS-MENU

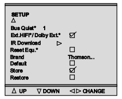

Change the page
Changement de page
Seitenwechsel
cambio di pagina
cambio de página
Hexadecimal value
Valeur hexadecimale de reglage
Abgleichwerte hexadezimal
Valore di regolazione esadecimale
Valor del ajuste en hexadecimal
VIDEO PAL
△
Scal.Brightness -1A
Scal. Colour +24
Scal. Contrast -1F
Text Setup Mode ▷
Default ☑
Store ☑
Restore ☑
△ UP ▽ DOWN ◁▷ CHANGE
Bargraph
Bargraphe de réglage
Bargraph
Barre grafica di regolazione
Barra gráfica del ajuste
Enable a function
Case de validation - Fonction validée si "cochée"
Zum Implementieren einer Funktion
Per inserire la Funzione
Activar una función
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode

ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION

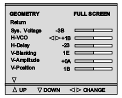

TUBE
Return
Tube type A66EGW...
Store ◁▷ ☑
Restore ☐
△ UP ▽ DOWN ◁▷ SELECT


SETUP
Return
OSD Position -20
PIN Erase ◁▷ ☑
Clear Progs.
Standard Pan-Euro ...
WSS ☑
Picture Rot * ☑
EPG / AV Link ☑
▽
△ UP ▽ DOWN ◁▷ CHANGE

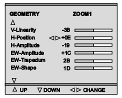
page 1
• only store modes


SETUP
△
Bus Quiet* 1
Ext.HIFI*/ Dolby Ext.* ☑
IR Download ▷
Reset Equ.* ☐
Brand Thomson...
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

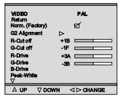
page 2
• only store modes


GEOMETRY FULL SCREEN
Return
Sys. Voltage -3B
H-VCO ◁▷ +1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

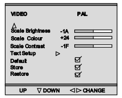
page 1
[illegible]


GEOMETRY ZOOM1
△
V-Linearity -3B
H-Position ◁▷ +0E
H-Amplitude -19
EW-Amplitude +1C
EW-Trapezium 2B
EW-Shape 1D
▽
△ UP ▽ DOWN ◁▷ CHANGE

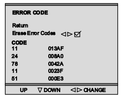
page 2
[illegible]

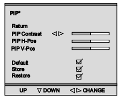

VIDEO PAL
Return
Norm. (Factory) ☑
G2 Alignment ▷
R-Cut off +1B
G-Cut off -1F
R-Drive +3A
G-Drive -3B
B-Drive
Peak-White
▽
△ UP ▽ DOWN ◁▷ CHANGE

page 1
[illegible]


VIDEO PAL
△
Scale Brightness -1A
Scale Colour +24
Scale Contrast -1F
Text Setup ▷
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

page 2
[illegible]


ERROR CODE
Return
Erase Error Codes ◁▷ ☑
CODE
11 013AF
24 008A0
78 0042A
11 0023F
51 000E3
UP ▽ DOWN ◁▷ CHANGE


PIP*
Return
PIP Contrast ◁▷
PIP H-Pos
PIP V-Pos
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

• only PIP modes

TUBE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

Tube type

After replacing the NVM, the correct tube type number must be entered (6 characters). Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list.

Definit le tube exact après changement de NVM. Les nouvelles valeurs de tubes (avec video et géometrie) sont actives de suite. Les paramètres de vidéo et de géométrie sont chargés en NVM lorsque STORE est sélectionné. Voir liste ci-dessous.

Nach dem Tausch des NVM (EEPROM) muß der richtige Bildrohrtyp eingegeben werden. Es werden dann sofort die entsprechenden Geometrie-und Video-Defaultwerte aktiviert. Variable Geometrie-und Videowerte müssen mit "STORE" in das NVM geschrieben werden. Liste der Röhren: siehe unten.

Definire il tubo appropriato dopo aver cambiato la NVM; I valori per il nuovo tipo di tubo (con video e geometria di default) sono immediatamente attivi. I parametri per video e geometria variabili vengono immessi nella NVM quando viene selezionata la funzione Store. Si veda la lista dei tubi riportata sotto.

Definir el tubo correcto después de haber cambiado el NVM.Los nuevos valores de tipo de tubo (con la vídeo y la geometría por defecto) se activan inmediatamente. Los parámetros variables de geometría y vídeo se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

TUBE NAME	LIST	DESCRIPTION
A59EGD048X322	A59EGD	4/3 25" SF(1)
A66EGW 83X122	A66EGW	4/3 28" MP(1)
A66EHJ43X12	A66EHJ	4/3 28" MP(2)
A68EGD038X322	A68EGD	4/3 29" SF(1)
A68EGV038X322	A68EGV	4/3 29" SF(1)
A80EJA16X122	A80EJA	4/3 33" MP(1)
A90AFX15X12	A90AFX	4/3 37" MP(4)
W66EGV023X122	W66EGV	16/9 28" SF(1)
W76EGV023X122	W76EGV	16/9 32"SF(1)
W76EGX023X122	W76EGX	16/9 32"SF(3)
W66LPQ356X99	W66LPQ	16/9 28"XF(5)
W76LPF350X97	W76LPF	16/9 32"XF(5)

Default tube type :
100Hz A66EGW 83X122 : A66EGW
4/3 28"MP, Invar, vector gun, BSVM

(1) : Invar,vector gun, BSVM 100 Hz
(2) : AK, Coty-M 100 Hz.
(3) : Invar , Coty-M gun, BSVM
(4) : Invar , Coty MDF gun , BSVM 100Hz
(5) : Extra Flat Tube, Invar, BSVM 100Hz

SETUP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

OSD Position

Adjusts the position of all Megatext OSD.

Règle la position du texte OSD.

Adjusts the position of all Megatext OSD.

Adjusts the position of all Megatext OSD.

Regula la posición del OSD.

PIN Erase Erases all PINs.

☑ PIN active ☐ No PIN active

Selection : Long press:
Press </>/OK: remote control;Vol. +/- :TV keyb.
Automatically stored.

Clear Prog.

Clears all programms stored in memory and resets all Picture and Sound settings to the factory defaults. The AUTO INSTALL (out of factory) mode can be initialised by a long press (>2.5s.) of the selection button.

Efface tous les programmes mémorisés. Valeurs SON et IMAGES: valeurs usines. Fonction valide par une longue pression (>2.5s.) sur la touche de sélection </>.

Löscht alle Programmplätze und setzt alle Bild-und Toneinstellungen auf Fabrikwerte zurück. Der AUTO-INSTALL-Modus kann durch einen langen Knopfdruck (>2,5s) initialisiert werden.

Clear Prog.
Cancella tutti i programmi in memoria e regola i Valori analogici SUONO IMMAGINE: alivelli di fabbrica.Riportare la TV al modo Selezione: pressione prolungata: 2,5 sec.

Programa de borrado.
Borra todos los programas almacenados en la memoria.Valores analógicos de IMAGEN y SONIDO: valores de fábrica.Regreso a la TV para "salir del modo fábrica".Selección: Presión larga igual a 2,5 s.

Standard "Pan-Euro" or "I".
BG PAL SECAM,L SECAM (France),
DKK' SECAM,NTSC M,I PAL (UK/IRELAND)

WSS

Automatic detection of DOLBY surround sound and 16/9 format pictures via Teletext line number 23 is valid on all programmes.

Détection automatique du son surround DOLBY et du format 16/9 via la ligne 23 du Teletxte. Valide pour tous programmes.

WSS (nur bei 16:9 oder Dolby)
Auswertung der Zeile 23 zur automatischen Format-und Dolbyumschaltung.

Identificazione "auto-surround" e "format" via televideo alla riga 23.La selezione di WSS Processing vale per tutti i programmi.

Detección "auto-surround" y "format" a través de la línea 23 de Teletext.La selección del procesamiento WSS es válida para todos los programas.

☑ Detection enable ☐ Detection disable

⟶ After setting ⟶ Store (+) ☑

SETUP

Picture Rot

Enables the "Earth Field Correction" function (EFC) on ICC19-MM by adding a special bargraph in the preferences 2 menu. It is necessary to validate this function if the SFBEFC correction circuit is fitted.

Valide la fonction "correction de champ magnétique terrestre" (EFC)sur les chassis ICC19-MM par addition d'un bargraphe spécifique dans le menu 2 des préférences. Cette fonction doit être validée lorsque le circuit de correction "SFBEFC" est monté.

Freigabe der Erdfeldkorrektur (EFC) bei ICC19-MM. Geräten wenn ein SFBEFC-Modul eingebaut ist. Fügt im Menü "Präferenzwerte 2" einen Anzeigebalken hinzu.

Attiva la funzione "Correzione del campo magnetico terrestre" (EFC) sul telaio ICC19- MM, aggiungendo una speciale barra grafica nel menù di preferenza 2. Se il circuito di correzione è montato, è necessario convalidare questa funzione.

Valida la función "corrección del campo magnético terrestre" (EFc) en los chasis ICC19 MM añadiendo una barra gráfica en el menú 2 de preferencias. Es necesario validar ésta función si el circuito de corrección SFBEFC está montado.

☑ Rotation bargraph available in picture 2 menu, EFC function active

☐ Rotation bargraph suppressed from picture 2 menu, EFC function disactivated

EPG / AV Link

Enables or disables the option to decode and display EPG program data.

Validation ou inhibition du décodage/affichage des données du programme EPG.

Zulassen oder Nichtzulassen von EPG.

Abilita o disabilita l'opzione di decodifica e visualizzazione dati programmi EPG.

Valida o inhibe la opción de descodificación y visualización de datos del programa EPG.

☑ Available ☐ Not available

SETUP

Bus Quiet

In "Bus Quiet", the NVM can be read, modified and reprogrammed by means of a NVM Programmer. To access "Bus Quiet" : Long press ">". The TV should remain in "Bus Quiet" mode until either Exit, Left, Right, Up,Down or Standby keys on the RCU or local keyboard are pressed; at which point the TV should carry out a warmstart in order to prevent differences between the NVM and RAM contents. After returning from Bus Quiet, the software checks the NVM content. If it is not valid, the software perform a new default writing of the NVM content.

En mode Bus Quiet la NVM peut être lue, modifiée et reprogrammée. Accès au mode Bus Quiet : Longue pression ">". Utiliser l'une des touches Exit, Gauche, Droite Haut, Bas, standby ou une des touches du clavier pour sortir le téléviseur du mode bus quiet. A partir de ce point de sortie le démarrage du téléviseur s'effectue à chaud pour éviter toute différence des contenus RAM et NVM. En sortie de mode Bus Quiet, le logiciel contrôle le contenu de la NVM. S'il n'est pas correct le logiciel exécute une nouvelle écriture par défaut de celle-ci.

Im "Bus Quiet"-Modus kann der Inhalt des NVM mittels eines externen NVM-Programmiergerätes ausgelesen, geändert oder neu programmiert werden. "Bus Quiet" wird einem längeren Druck auf ">" aktiviert. Das Gerät bleibt solange im "Bus Quiet" - Mode, bis durch Druck auf die EXIT-, LINKS-, RECHTS-, HOCH-, RUNTER- oder STANDBY-Taste (am Gerät oder auf der Fernbedienung) ein Warmstart des Gerätes veranlaßt wird, um unterschiedliche Daten in RAM und NVM zu vermeiden. Es folgt ein Software-Check des NVM-Inhaltes. Sollte dieser nicht gültig sein, wird der Inhalt mit Default-Werten überschrieben.

In Modo Bus Quiet, la memoria NVM può essere letta, modificata o riprogrammata. Per accedere al modo Bus Quiet premere a lungo il tasto ">". Il TV dovrebbe rimanere in modo Bus Quiet fino a che vengono premuti i tasti Exit, o Destro Sinistro, Su o Giù o Standby dal telecomando o dalla tastiera locale; a questo punto il TV dovrebbe ripartire per evitare interferenze tra i contenuti della memoria NVM e della RAM. All'uscita dal modo Bus Quiet, il software controlla il contenuto della memoria NVM. Se tale contenuto non è valido, il software provvede a una nuova programmazione della NVM con l'inserimento dei dati di default.

En bus quieto, la NVM puede ser leída, modificada y reprogramada. Acceso a bus quieto : Larga presión en ">" El TV permanecerá en bus quieto hasta que se pulse cualquiera de las teclas siguientes: Exit, "<", "Y", "/", ">"o Standby del telemando o del teclado. En este momento el TV arrancará para evitar cualquier diferencia entre los contenidos de la RAM y NVM. Al salir del modo bus quieto, el software comprueba el contenido de la NVM. Si no coincide, el software ejecuta la escritura de los datos en la NVM.

☑ Bus Quiet enable ☐ Bus Quiet disable

⟶ After setting ⟶ Store (+) ☑

SETUP

EXT.HIFI / Dolby Ext.

Dolby internal; not available on Normal Sound TV's

☑ Dolby with External Loudspeaker. ☐ Dolby with Internal Loudspeakers.

External HIFI Not available on Dolby TV's

☑ External HIFI control ☐ Normal sound control

IR Download

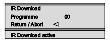
Download screen for receiving mapping via IR data.

Ecran de chargement pour réception "mapping" via IR data

Laden des Programmschemas per AV-Link

Trasferimento IR
Trasferire schermo per ricezione mappatura via dati IR

Descarga de IR
Pantalla de descarga para recibir el mapeado a través de los datos IR.


IR Download
Programme 00
Return / Abort ◁
IR Download active

"Programme 00" : function is active or finished. Return / Abort : To exit/Abort the menu press "left" arrow key or Volume - key of keyboard. All other IR commands have no response.

"Programme 00" : Fonction active ou finie. Return / Abort : Pour sortir du menu appuyer sur la touche "gauche" ou "Volume -" du clavier. Les autres commandes IR sont sans réponse;

"Programme00":Funktion ist aktiv oder beendet "Return/Abort": Beenden oder Abbruch der Funktion durch Drücken der linken Pfeiltaste oder "Lautstärke-" am Gerät.Alle anderen Tasten haben keine Funktion.

Programma 00: la funzione è attiva o finita. Return/Abort: per uscire dal menu, premere il tasto "sinistra" del telecomando o il tasto Volume- della tastiera. Tutti gli altri comandi IR sono senza risposta.

"Programme00" : función activa o terminada. "Return / Abort" : para salir / abortar, pulsar la tecla "flechaizquierda" o la tecla "volumen -" del teclado. Todos los demás comandos IR son inoperantes

Reset Equ.	Reset Equaliser Not available Non disponible

Brand*

Set the "Brand": Thomson, Telefunken, Other
Factory adjusted
Reserve au reglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas
Press </>: remote control; Vol. +/- : TV keyb.

⟶ After setting ⟶ Store (+) ☑

GEOMETRY

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

System Voltage
Only possible via the local keyboard Vol +/- .

TUBE NAME	DESCRIPT.	Ueys
A59EGD048X322	4/3 25" SF	137V +/- 0.5V
A66EGW83X122	4/3 28"MP	137V +/-0.5V
A66EHJ43X12	4/3 28" MP	134V +/- 0.5V
A68EGD038X300/322	4/3 29" SF	137V +/-0.5V
A68EGV038X322	4/3 29" SF	137V +/-0.5V
A80EJA16X122	4/3 33" MP	137V +/- 0.5V
A90AFX15X12	4/3 37" MP	137V =/-0.5V
W66EGV023X122	16/9 28" SF	134V +/- 0.5V
	PANORAMA	140V +/- 0.5V
W76EGV023X122	16/9 32"SF	134V+/- 0.5V
	PANORAMA	140V +/- 0.5V
W76EGX023X122	16/9 32"SF	140V +/- 0.5V
W66LPQ356X99	16/9 28" XF	140V +/- 0.5V
W76LPF350X97	16/9 32" XF	140V +/- 0.5V

H-VCO Horizontal - VCO Oscillator.

Adjust the value of H-VCO until the speed of the unsynchronised picture becomes stable. (I.e minimum roll).

Agir sur H-VCO pour obtenir une image la plus proche de la synchronisation

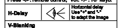
H_VCO auf Schwebung abgleichen.

Regolare l'H_VCO finché l'immagine non sincronizzata avrà raggiunto la velocità minima.

Ajuste H_VCO hasta que la imagen no sincronizada alcance su velocidad más baja.

default value = 0FH

Press </>: remote control; Vol. +/- : RP keyb.



H-Delay Horizontal delay Use"+" and "-" to adapt the image

V-Blanking

1-Adjust V-Amp. for a 107% over scanned picture.
2- Reduce V-Blanking for visible lines top and bottom of screen.
3-Increase step by step V-Blanking until at the cut- off lines at the top and bottom of the screen disappears.
4- Increase one more step
5- Next adjust the V-Amp. and V-Position.

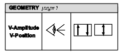
1-V-amp. amplitude verticale suffisante (>7% overscan)
2- réduire V-blanking:visible en haut et bas.
3-Agir étape par étape jusqu'à disparition du blanking en bas d'image et des lignes de cut-off en haut d'écran
4- Augmenter d'une valeur.
5- Faire un réglage fin de V-amp. et V-position

1- Voreinstellung der V-amp auf: >7% Überschreibung.
2- Reduzieren Sie V-Blanking soweit bis die ersten geschriebenen Zeilen am oberen Bildrand sichtbar werden.
3- Erhöhen Sie V-Blanking Schritt für Schritt bis die Cut-Off Meßzeilen gerade am oberen Bildrand verschwinden.
4- Erhöhen Sie V-Blanking um eine Stufe.
5- Feineinstellung von V-amp und V-position.

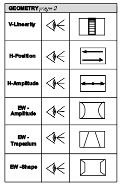
1- Ampiezza verticale: grande a sufficienza (7% di sovrascansioni)
2- Riduzione della soppressione verticale: visibile in alto e in basso
3- Aumentare passo/passo: finchè le linee di cut off nella parte alta dello schermo scompaiono.
4- Aumentare ancora di un passo
5- Regolare con precisione l'ampiezza e la posizione verticali

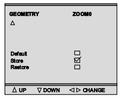
1- Amplitud V: suficientemente grande (7% de sobreexploración)
2- Reducir el borrado V: visible en las partes superior e inferior.
3- Aumentar el paso a paso: el borrado en la parte inferior y las líneas de cut-off en la parte superior desaparecen.
4- Aumentar de otro paso.
5- Ajustar finamente la amplitud V y la posición V.

GEOMETRY page 1



GEOMETRY page 2




GEOMETRY ZOOM0
△
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

page 3

⟶ After setting ⟶ Store (+) ☑

VIDEO PAL

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

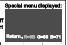
Press </>: remote control; Vol. +/- : TV keyb.

Norm. (Factory)

Recalls the factory settings for Colour, Brightness, Contrast, Sharpness and sets Contrast Expand to "LOW".

☑ Factory settings recalled
☐ User settings kept.

G2 Alignment Special menu displayed:

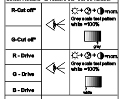

Return R=6B G=60 B=71

Initially set R_Cut-Off and G_Cut-off to 80H

Adjust the lowest value with SCREEN poentiometer to: RGB cut-off counters

Tube Type	Value	Tube Type	Value
A59EGD	50H	A90AFX	50H
A66EGW	60H	W66EGV	50H
A66EHJ	50H	W66LPQ	50H
A68EGD	50H	W76EGV	60H
A68EGV	50H	W76EGX	60H
A80EGV	60H	W76LPF	60H
A80EJA	60H		

To return to the Video Submenu:
Press </>/OK: remote control;Vol. +/- :TV keyb.
Select"Restore" to restore the cut-off values.



Peak-White** ☼+◐+◑=nom.

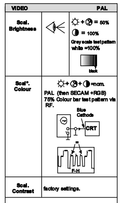
Peak white test pattern white =100%
Colourimeter

Tube Type	[Nits]	Tube Type	[Nits]
A59EGD	400	A90AFX	-
A66EHJ	300	W66EGV	480
A66EGW	370	W66LPQ	450
A68EGD	350	W76EGV	380
A68EGV	-	W76EGX	380
A80EJA	350	W76LPF	350

⟶ After setting ⟶ Store (+) ☑

Note :
* adjust separate for PAL/NTSC/SECAM and RGB/AV
** After PEAK white adjustment control cut off setting. Repeat the adjustments if necessary.

VIDEO PAL



Scal. Contrast	factory settings.

Text Set-up Mode ☼+◑+◐=nom.

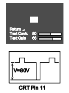
Set Text Contr. to 80H.
Adjust Text Gain for V=80V at pin 11 (Blue) of the CRT

Mettre Text Contr. à la valeur 80H.
Ajuster Text Gain pour obtenir un niveau de sortie V=80V sur la cathode Bleue du tube (point 11 de la CRT).

Stellen Sie Text Contr. auf 80H ein.
Stellen Sie mit Text Gain V=80V an der Blau-Kathode (Pin 11) der Bildröhre ein.

Regolare il contrasto televideo a 80H.
Regolare il guadagno contrasto televideo per ottenere al catodo del blu un livello pari a V=80V (CRT pin 11).

Poner el Text Contr. a 80H.
Ajuste Text Gain para dejar V=80V en azul del TRC (CRT Patilla 11) .



CRT Pin 11

⟶ After setting ⟶ Store (+) ☑

ERROR CODE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

Erase Error Codes To clear all error codes stored in the NVM. Action: Long press (> 2.5sec.).
Press </>/OK: remote control;Vol. +/- :TV keyb.

CODE LED Error Codes

The last five error codes are stored and displayed as they occured in real time, the most recent error code is displayed on the top line. A repeated top line error code has its real time count updated. There are 27 different error codes, which are signalled by the TV's Standby LED, ranging in value from 11 to 49 hex. The error code is displayed as two separate digits separated by a suitable pause, this is repeated until the either the TV fixes the fault or the TV is repaired. For example Error-code : 23 will be displayed thus :
2 flashes and a short pause
3 flashes and a long pause
....
List of Errors Codes : see table

Mémorise les cinq derniers codes erreurs et affiche en haut d'écran les plus récents.
27 codes erreurs différents sont signalés par deux digits selon une séquence spécifique
Exemple :
Code erreur : 23 affiché
2 flashes, courte pause
3 flashes : longue pause
....
Voir ci-contre la liste des codes erreurs

Zeigt die letzten 5 Fehlercodes mit der Laufzeit an. Der zuletzt aufgetretene Fehler steht an erster Stelle. Sollte ein Fehler wiederholt auftreten wird nur die Laufzeit aktualisiert. Die Fehlercodes können im Menü Error Code angezeigt werden oder über die Kontroll LED angezeigt werden;

Beispiel für die Anzeige über die Kontroll LED:

Fehlercode 23 :
Zweimaliges Blinken der LED, kurze Pause.
Dreimaliges Blinken der LED, lange Pause.
Auflistung der Fehlercodes : siehe Liste

Memorizza gli ultimi cinque codici d'errore (differenti tra loro) dopo che ognuno di essi si verrà visualizzato (attraverso il contatore della durata di esecuzione). L'errore più recente viene visualizzato in cima. La ripetizione del codice di errore in cima alla lista non farà altro che aggiornare la durata di esecuzione. Dal LED del TV vengono segnalati 27 codici d'errore differenti, numerati da 11 a 44. Il codice d'errore è indicato da due cifre separate da un opportuno intervallo di tempo e verrà ripetuto fino a quando il televisore non sarà stato riparato o non si sarà corretto da solo.
Ad es:
Il codice d'errore 23 visualizzerà:
2 segnali luminosi con pausa breve
3 segnali luminosi con pausa lunga
Per la lista dei Codici d'Errore, si veda la tabella

Guarda los últimos cinco códigos de error cuando cada uno ocurre (gracias al contador de tiempo de ejecución). El error más reciente se visualiza en la parte superior. Una repetición del código de error en la parte superior de la lista solamente actualiza el tiempo de ejecución. El indicador TV LED indica 27 códigos de error diferentes: de 11 a 44. El código de error se señala en forma de dos dígitos separados con una pausa apropiada entre los dos y se repetirá hasta que repare el TV o él se repara a sí mismo.
Por ejemplo,
Se va visualizar el código de error 23:
2 parpadeos, una pausa corta;
3 parpadeos, una pausa larga.
Para la lista de códigos de error, consulte la tabla.

PIP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

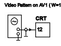
Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

PIP Contrast ☼+◑+◐ = 50%


Video Pattern on AV1 (W=100%)

Y PIP picture = Y main picture

PIP H-Pos - PIP V-Pos

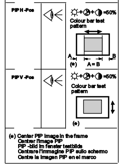
Factory adjustments.These adjustments are optimized by software.
Used only if necessary.

Réglages usines. Ces réglages sont optimisés par le software.
Ils ne sont à utiliser que si nécessaire.

Factory adjustments.These adjustments are optimized by software.
Used only if necessary.

Factory adjustments.These adjustments are optimized by software.
Used only if necessary.

Ajustes de fábrica. Estos ajustes están optimizados por software.
Utilizar sólo en caso necesario.



(*) Center PIP image in the frame
Centrer l'image PIP
PIP -bild im fenster testbilds
Centrare l'immagine PIP sullo schermo
Centre la imagen PIP en el marco

⟶ After setting ⟶ Store (+) ☑

ERROR CODES

GB

11 1st Audio_MSP doesn't answer
12 2nd Audio-MSP doesn't answer
13 Audio-DSP doesn't answer
14 Video IC STV2161/2 doesn't answer
15 Chroma IC 2151/9143 doesn't answer
16 Upconverter DMU0 doesn't answer
17 Audio (or Dolby) module not detected
18 SCART IC TEA6415C doesn't answer
19 Tuner CTT5000 doesn't answer
21 I2C Bus1 data line held low
22 I2C Bus2 data line held low
23 I2C Bus1 clock line held low
24 I2C Bus2 clock line held low
25 Switched 5V not available
26 Tube doesn't get warm in time
27 Deflection detects >3 times protection (problem detected on "breathing" line)
29 DRAM memory of Megatext defect
31 RAM is full
32 A Software-timer has been requested, bus is not available yet
33 The PSI chip (STV2165) doesn't answer
34 The NVM (X24C32) chip doesnt answer
35 13V not available
36 Wrong addr. NVRAM passed to the bus-handler
37 Unexpected level on NMI (interrupt) line found (possible cause : tube flashover)
38 M3LBus for Megatext is blocked
39 Megatext (SDA5273) doesn't answer
41 Bus1 Data Line not recoverable
42 bus2 Data Line not recoverable
43 MCU (Motion Mastering Up-Converter) doesn't answer
45 Defect "Video Module" is detected
51 PIP Module doesn't answer.
52 The Teletext module is not conform .

F

11 Processeur Audio MSP ne répond plus
12 Deuxième MSP ne répond plus (Dolby)
13 Audio-DSP ne répond plus (produit Dolby)
14 Video-IC STV2161 ou 2162 ne répond plus
15 Chroma-IC STV2151 ou TDA9143 ne répond plus
16 Convertisseur de frequence d'image digital DMU0 (Intelligent Mastering) ne répond plus
17 Module son (ou Dolby) n'est pas détecté
18 Commutateur SCART TEA6415C ne répond plus
19 Tuner CTT5000 ne répond plus
21 I2C-bus 1 data bloqué au niveau bas
22 I2C-bus 1 data bloqué au niveau bas
23 I2C-bus 2 clock bloqué au niveau bas
24 I2C-bus 2 clock bloqué au niveau bas
25 Le "5V commuté" n'est pas disponible
26 Tube ne chauffe pas a temps
27 Plus que 3-fois la déflection a détecté une "protection" (c'est-a-dire qu'il y a un problème détecté sur la ligne "breathing")
29 Mémoire (DRAM) du Megatext est en panne
31 Plus de place en RAM
32 Requète logiciel-timer demandée mais pas encore disponible
33 STV 2165 (PSI 100Hz) ne répond plus
34 NVM (mémoire) X24C32 ne répond plus
35 +13V n'est pas disponible
36 Adresse NVRAM inconnue
37 Problème détecté sur la ligne "interrupt" pendant le démarrage ou le fonctionnement du TV. Possibilité: "arking"?
38 Bus M3L pour Megatext est bloqué
39 Megatext (SDA5273) ne répond plus
41 I2C-bus 1 data reste bloqué
42 I2C-bus 2 data reste bloqué
43 MCU (convertisseur de frequence d'image digital: Motion Mastering) ne répond plus
45 "Vidéo Module" erroné détecté
51 Le module PIP ne répond plus.
52 Le Module Text (DVT) n'est pas le bon.

D

11 Audio MSP Prozessor antwortet nicht.
12 Zweiter Audio MSP Prozessor antwortet nicht.(Dolby)
13 Audio DSP Prozessor antwortet nicht. (Dolby)
14 IC STV2161/62 antwortet nicht
15 IC STV2151 / TDA9143 antwortet nicht
16 DMU0 Upconverter (Videomodul) antwortet nicht
17 Audio- oder Dolby-Modul nicht erkannt
18 TEA6415C antwortet nicht (SCART-Schalter)
19 Tuner CTT5000 antwortet nicht
21 I2C Bus1 data line ist auf low
22 I2C Bus2 data line ist auf low
23 I2C Bus1 clock line ist auf low
24 I2C Bus2 clock line ist auf low
25 Geschaltete 5V nicht vorhanden
26 Röhre wird nicht rechtzeitig warm
27 Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29 DRAM des Megatext defekt
31 RAM antwortet nicht
32 Ein software-timer wurde angefordert,ist aber noch nicht bereit
33 STV 2165 (PSI 100Hz) antwortet nicht
34 NVM Chip antwortet nicht (X24C32)
35 +13V nicht vorhanden
37 Unerwarteter Zustand an NMI (Interrupt) line gefunden. (Mögliche Ursache = Röhren-Überschlag")
38 M3L Bus des Megatext blockiert
39 Megatext (SDA 5273) antwortet nicht
41 Bus1 (data line) nicht möglich zu reaktivieren
42 Bus2 (data line) nicht möglich zu reaktivieren
43 MCU (Motion Mastering Up-Converter) antwortet nicht
45 falsches Videomodul (falscher MCU)
51 PIP antwortet nicht
52 Falsches Videotextmodul.

I

11 Il primo IC Audio MSP non risponde
12 Il secondo IC Audio MSP non risponde
13 L'integrato Audio DSP non risponde
14 L' IC 2161/2 non risponde
15 L'IC 2151/9143 non risponde
16 Il convertitore non risponde
17 Il Modulo Audio non viene identificato
18 Il TEA6415C non risponde
19 Il sintonizzatore non risponde
21 Linea data I2C bus 1 forzata bassa
22 Linea data I2C bus 2 forzata bassa
23 Linea clock I2C bus 1 forzata bassa
24 Linea clock I2C bus 2 forzata bassa
25 La tensione 5V commutati non disponibile
26 Il tubo non raggiunge la corretta temperatura nel tempo stabilito
27 Per 3 volte, la deflessione ha rilevato una protezione (problema riscontrato dalle linee "breathing")
29 Difetto alla DRAM di Megatext
31 La RAM è satura
32 E'stato richiesto un software-timer, ma non é ancora disponible
33 Il chip PSI non risponde
34 Il chip NVM non risponde
35 13V non disponibile
37 Livello imprevisto sulla linea NMI
38 Bus M3L per Megatext bloccato
39 Megatext non risponde
41 Bus 1 (linea dati) non ripristinabile
42 Bus 2 (linea dati) non ripristinabile
43 MCU non risponde
45 rivelato Modulo Video difettoso
51 Il Modulo PIP non viene identificato
52 Il modulo Televideo non è conforme

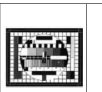
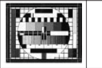
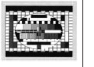
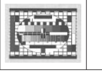
E

11 Procesador de audio MSP no responde
12 Segundo MSP no responde (Dolby)
13 Audio DSP no responde
14 Cir.integrado de video STV2161 ó 2162 no responde
15 Cir.integrado croma ST2151 ó TDA9143 no responde
16 Convertidor de frecuencia de imagen digital DMU0 (Mastering Inteligente) no responde
17 Módulo de sonido (o Dolby) no se detecta
18 Conmutador Scart (TEA6415C) no responde
19 Tuner CTT5000 no responde
21 Data 1 del bus I2C permanece en bajo
22 Data 2 del bus I2C permanece en bajo
23 Clock 2 del bus I2C permanece en bajo
24 Clock 2 del bus I2C permanece en bajo
25 No se dispone de los "5v conmutados"
26 El tubo tarda en calentarse
27 La protección de la deflexión actúa mas de 3 veces (el problema se detecta en la línea de "breathing")
29 La memoria DRAM del Megatext está defectuosa
31 RAM está llena
32 Un timer-software ha sido solicitado,pero no está disponible
33 El chip STV2161 (PSI 100Hz) no responde
34 La memoria no volátil X24C32 no responde
35 No están disponibles los + 13 v.
37 Problema detectado en la línea "interrupt" durante el arranque o el funcionamiento del TV.Posibilidad de chispazos en muy alta?
38 El bus M3L para el Megatext está bloqueado
39 Megatext (SDA5273) no responde
41 Data 1 del bus I2C permanece boqueado
42 Data 2 del bus I2C permanece bloqueado
43 MCU (convertidor de frecuencia de imagen digital: Motion Mastering) no responde
45 Fallo detectado en el módulo de Video
51 El módulo PIP no responde
52 El módulo Teletexto no es conforme

GEOMETRY MODE ALIGNMENT - 100Hz VERSION

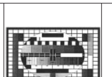
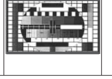
4/3 picture tube

Signal : 4/3 test pattern

4 / 3 standard mode zoom 0		100Hz Version : overscan V=107% , H=107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity 3- Adjust Horizontal Position and Horizontal Amplitude 4-Adjust EW Amplitude ,EW Shape and Trapezium
<4/3> zoom 1		100 Hz Version : overscan V=120% , H=120%
16 / 9 standard mode zoom 0		Adjust the vertical height until V = 80%
<16 / 9> zoom 1		Adjust the vertical height : V =90%

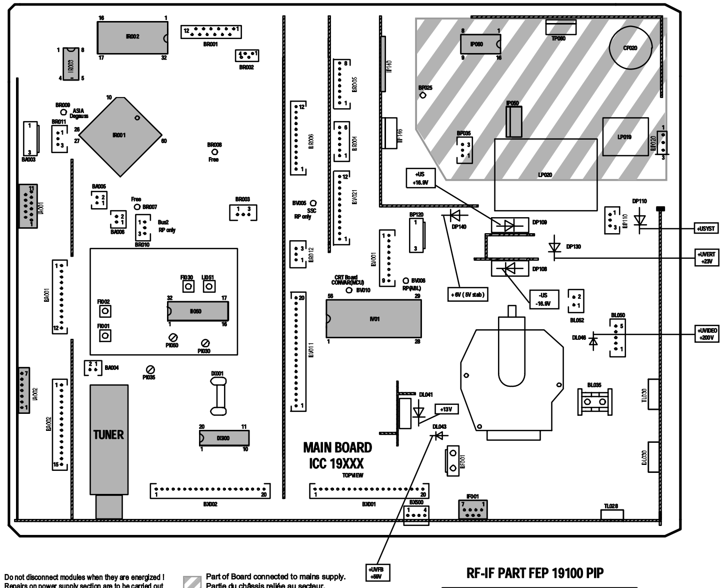
16/9 picture tube

Signal : 4/3 test pattern

16 / 9 standard mode zoom 0		100Hz Version : overscan V=107%, H =107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity 3- Adjust Horizontal Position and Horizontal Amplitude 4-Adjust EW Amplitude ,EW Shape and Trapezium
4 /3 PANORAMA mode		100Hz Version : Mode PANORAMA overscan V=114%, H =107% 1- Adjust Vertical Amplitude and Horizontal Amplitude 2- Adjust Horizontal Position EW Amplitude

MC-Service

LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - SERVICE LAGEPLAN - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES


IR002
BR001
BR002
IR003
BR009
ASIA Degauss
BR011
IR001
BA003
BR008 Free
IA001
BA005
BA006
Free BR007
BR010
Bus2 RP only
BR003
BA001
FI030
LI051
FI002
FI001
II050
PI050
PI030
BA004
PI035
IA002
BA002
TUNER
IX001
IX900
BX002
BR006
BR005
BR004
BV021
BV005 SSC RP only
BR012
BV001
CRT Board CONVAR(MCU)
BV010
BV006 RP(ABL)
BV011
IV01
MAIN BOARD
ICC 19XXX
TOPVIEW
BX001
BX500
IF001
TL028
IP140
IP146
IP060
TP060
CP020
BP025
IP050
BP035
LP019
LP020
BP020
+US +16.9V
BP120
DP140
DP109
DP130
DP108
DP110
BP110
+USYST
+UVERT +23V
+6V (5V stab)
-US -16.9V
BL052
BL050
DL046
+UVIDEO +200V
BL035
TL030
DL041
+13V
DL043
BF001
DL030
+UVFB +59V

⚠ Do not disconnect modules when they are energized ! Repairs on power supply section are to be carried out only with isolating transformer.

Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch mode) qu'au travers d'un transformateur d'isolement.

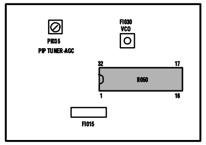
Module nicht bei eingeschaltetem Gerät entfernen ! Servcearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare i moduli quando sono alimentafi ! effetuare riparazioni sulla sezione alimentatore solo con transformatore separatore.

No desconectar los módulos cuando están activados ! Las reparaciones en la sección de alimentación de energia deben ser ejecutadas solamente con un transformador de separacíon.

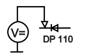
▨ Part of Board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseite des Netzteils
Parte del pannello collegato alla rete di alimentazione
Parte del chasis conectada a la red

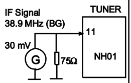
RF-IF PART FEP 19100 PIP


PI035
PIP TUNER-AGC
FI030
VCO
32
17
II050
1
16
FI015

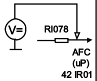
ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

<table>
<tr>
<td>U Sys</td>
<td>SERVICE MODE</td>
<td>Standard TV - Settings :
OMA Position

TV to AV1 : Black test pattern</td>
<td> </td>
<td>
<table>
<tr><th>TUBE NAME</th><th>DESCRIPTION</th><th>Usys jumper</th><th>Usys</th></tr>
<tr><td>A66EGW83X122</td><td>4/3 28"MP</td><td>JP914</td><td>137V +/-0.5V</td></tr>
<tr><td>A66EHJ43X12</td><td>4/3 28" MP</td><td>JP915</td><td>134V +/- 0.5V</td></tr>
<tr><td>A66EHJ43X122</td><td>4/3 28" MP</td><td>JP914</td><td>137V +/- 0.5V</td></tr>
<tr><td>A68EGD038X322</td><td>4/3 29" SF</td><td>JP914</td><td>137V +/-0.5V</td></tr>
<tr><td>A80EJA16X122</td><td>4/3 33" MP</td><td>JP914</td><td>137V +/- 0.5V</td></tr>
<tr><td>A90AFX15X12</td><td>4/3 37" MP</td><td>JP914</td><td>137V =/-0.5V</td></tr>
<tr><td>W66EGV023X122</td><td>16/9 28" SF</td><td>JP915</td><td>134V +/- 0.5V</td></tr>
<tr><td>W66EGV023X122</td><td>16/9 28" SF (PANORAMA)</td><td>JP917</td><td>140V +/- 0.5V</td></tr>
<tr><td>W76EGV023X122</td><td>16/9 32"SF</td><td>JP915</td><td>134V+/- 0.5V</td></tr>
<tr><td>W76EGV023X122</td><td>16/9 32"SF (PANORAMA)</td><td>JP917</td><td>140V+/- 0.5V</td></tr>
<tr><td>W76EGX023X122</td><td>16/9 32"SF</td><td>JP915</td><td>134V +/- 0.5V</td></tr>
<tr><td>W76EGX023X878</td><td>16/9 32"SF</td><td>JP917</td><td>140V +/- 0.5V</td></tr>
<tr><td>W66LPQ356X99</td><td>EXTRA FLAT TUBE 16/9 28" XF/INV/VG/BSVM</td><td>JP917</td><td>140V +/- 0.5V</td></tr>
<tr><td>W76LPF350X97</td><td>EXTRA FLAT TUBE 16/9 32" XF/INV/VG/BSVM</td><td>JP917</td><td>140V +/- 0.5V</td></tr>
</table>
</td>
</tr>
<tr>
<td>IF Alignment

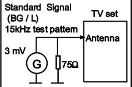
VCO
Standard BG</td>
<td>FI030</td>
<td>Switch set to standard BG


IF Signal
38.9 MHz (BG)
TUNER
11
30 mV
G
75Ω
NH01

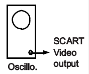
</td>
<td>

V=
RI078
AFC
(uP)
42 IR01

</td>
<td>Adjust FI30 / PI54 for 2,5VDC +/-0.1V</td>
</tr>
<tr>
<td>VIDEO-LEVEL Alignment</td>
<td>PI030

PI035</td>
<td>

Standard Signal
(BG / L)
15kHz test pattern
TV set
Antenna
3 mV
G
75Ω

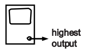
</td>
<td>

SCART
Video
output
Oscillo.

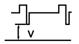
</td>
<td>Adjust PI030 : standard BG
Adjust PI035 : standard L

for V = 0,7 Vpp (Black/white level)</td>
</tr>
<tr>
<td>U G2

METHOD 1
Measurement method</td>
<td>G2 potentiometer (SFB) or R2 (NSDFB 19500) according to models</td>
<td>Standard TV - Settings :
OMA Position

TV to AV1 : Black test pattern</td>
<td>

highest
output

CRT 1910X (100Hz) :
R signal : IB01 Pin 15
G signal : IB03 Pin 15
B signal : IB02 Pin 15</td>
<td>
1 - Adjust VG2 : V= 160V +/- 5 V
2 - Adjust Focus
3 - Adjust VG2 : V= 160V +/- 3V</td>
</tr>
<tr>
<td>METHOD 2
Cut-off counter method</td>
<td>SERVICE MODE</td>
<td>Standard TV - Settings :
OMA Position

No test pattern
(generated by internal text processor).</td>
<td></td>
<td>Initially set R_Cut-off and G_Cut-off to 80H.
Select G2 Alignment in Service Mode
Adjust the lowest value to:

Select "Restore" in Service Mode and press "OK" to restore the cut-off values.
<table>
<tr><th>Tube Type</th><th>Value</th></tr>
<tr><td>A66EGW</td><td>60H</td></tr>
<tr><td>A66EHJ</td><td>50H</td></tr>
<tr><td>A68EGD</td><td>50H</td></tr>
<tr><td>A68EGV</td><td>50H</td></tr>
<tr><td>A80EJA</td><td>-</td></tr>
<tr><td>A90AFX</td><td>50H</td></tr>
<tr><td>W66EGV</td><td>50H</td></tr>
<tr><td>W76EGV</td><td>60H</td></tr>
<tr><td>W76EGX</td><td>60H</td></tr>
<tr><td>W66LPQ</td><td>50H</td></tr>
<tr><td>W76LPF</td><td>50H</td></tr>
<tr><td>W66EGX</td><td>50H</td></tr>
</table>
</td>
</tr>
<tr>
<td>FOCUS</td>
<td>FOCUS</td>
<td>Test pattern
(standard values)</td>
<td></td>
<td>Sharp picture</td>
</tr>
</table>

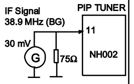
FOCUS ADJUSTMENT FOR EXTRA FLAT TUBE (XF) - REGLAGE FOCUS POUR LES TUBES EXTRA PLATS (XF) - FOKUS-EINSTELLUNG BEI EXTRA FLAT-BILDRÖHREN (XF) - REGOLAZIONE FUOCO PER TUBI EXTRA FLAT (XF) - AJUSTE DEL FOCO PARA T.R.C. EXTRAPLANO (XF)

<table>
<tr>
<td>FOCUS</td>
<td colspan="2">TV : AV1 Test pattern
Standard TV - Settings :
☼ + ◑ + ◐ = 50%</td>
<td>Sharp picture</td>
</tr>
<tr>
<td rowspan="5">FOCUS
DFB</td>
<td rowspan="5">PN601

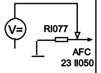
PN600</td>
<td>GB</td>
<td>1 - Turn PN601 fully anticlockwise.
2 - Using PN600 adjust the focus of the centre section of the top horizontal line i.e. finest line without "flare".
3 - Using PN601 adjust the focus of the vertical line at the edge of the screen i.e. finest line without "flare".
4 - Readjust the focus of the centre section of the top horizontal line with PN600 if necessary.</td>
</tr>
<tr>
<td>F</td>
<td>1 - Tourner PN601 à fond dans le sens inverse des aiguilles d'une montre.
2 - Régler PN600 pour obtenir le centre de la ligne horizontale en haut d'écran la plus fine possible.
3 - Régler PN601 pour obtenir la ligne verticale au bord la plus fine possible.
4 - Retoucher PN600 sur le centre de la ligne horizontale en haut d'écran si cette dernière a été affectée par PN601.</td>
</tr>
<tr>
<td>D</td>
<td>1 - Drehen Sie PN601 bis zum linken Anschlag.
2 - Stellen Sie mit PN600 die Schärfe in der Mitte der obersten horizontalen Zeile auf Maximum (ohne Nachzieheffekte) ein.
3 - Stellen Sie die Schärfe der vertikalen Linien in den Ecken auf Maximum (ohne Nachzieheffekte) ein.
4 - Falls notwendig, wiederholen Sie die Einstellung der Bildschärfe in der Mitte der obersten horizontalen Zeile mit PN600.</td>
</tr>
<tr>
<td>I</td>
<td>1 - Ruotare PN601 in senso antiorario.
2 - Regolare la focalizzazione centrale della linea orizzontale nella parte alta dello schermo con PN600. Il più sottile possibile senza "flare".
3 - Regolare PN601 per avere le righe verticali ai lati dello schermo il più sottili possibile senza "flare".
4 - Regolare se necessario PN600 per avere un'ottima focalizzazione centrale della linea orizzontale nella parte alta dello schermo.</td>
</tr>
<tr>
<td>E</td>
<td>1 - Girar PN601 totalmente en sentido antihorario.
2 - Ajustar el enfoque con PN600 para obtener la parte central de línea horizontal de la parte superior de la pantalla lo más fina posible.
3 - Ajustar PN601 para obtener las líneas verticales lo más finas posible y sin rebordes.
4 - Reajustar con PN600 el enfoque en el centro de la parte superior de la pantalla, si es necesario.</td>
</tr>
</table>

RF / IF PART FEP 19100 PIP

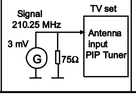
<table>
<tr>
<td>IF Alignment

VCO
Standard BG</td>
<td>FI030</td>
<td>Switch set to standard BG


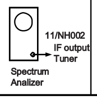
IF Signal
38.9 MHz (BG)
PIP TUNER
11
30 mV
G
75Ω
NH002

</td>
<td>

V=
RI077
AFC
23 II050

</td>
<td>Adjust FI30 for 2,5VDC +/-0.1V</td>
</tr>
<tr>
<td>TUNER-AGC</td>
<td>PI050</td>
<td>

Signal
210.25 MHz
TV set
Antenna
input
PIP Tuner
3 mV
G
75Ω

</td>
<td>

11/NH002
IF output
Tuner
Spectrum
Analizer

</td>
<td>Adjust PI050 : Maximum level

Reduce level with PI50 about 10dB.</td>
</tr>
</table>

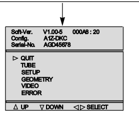
I - ENTER/EXIT SERVICE MODE - ENTREE/SORTIE DU MODE SERVICE - EIN-AUSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

SERVICE MODE (GB)

1 ACCESSING SERVICE MODE

TV Control Panel Access

- Turn "Off" the TV using the **ON/OFF** button.
- Press the **PR-** and **VOL-** buttons ,hold them down and switch "On" the TV with the **ON/OFF** button.
- After the normal switch on time the main service menu appears on the screen.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Note :

In service mode :
- *The child lock function is re-initialized*
- *The look function (PIN Number) is ignored.*
- *Clear any wake-up/sleep timers*
- *Pin 8 of the scart plug has to be ignored.*
- *AV- Link WSS detection , EPG and Teletext have to be disabled.*
- *Automatic stand-by functions, in case of no antenna signal have to be disabled.*
- *Contrast, colour, brightness : factory settings.*
- *Sharpness : middle (nominal)*
- *Contrast expander to low.*
- *Install Mode disabled.*
- *Default format and zoom..*

2 TEMPORARY EXIT FROM SERVICE MODE

- Press Exit on the Remote control.
- Everyday use menu can be accessed via Menu button.

- Field Service Menu can be re-entrered via Blue button.

3 EXITING FROM SERVICE MODE

Remote Control | **TV control panel** | **on/off key or Stand-by**

- Go to the point QUIT in the Field service Mode main menu.
- Press «<», «OK» or «>» button
- Press «VOL.+»button
- TV mode.

- Stand-by function or «off» with on/off key.

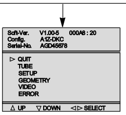
Values or adjustments are no stored before exiting from service mode will not be written into the NVM

MODE SERVICE (F)

1 ACCES AU MODE SERVICE

Accès avec le clavier du téléviseur

- Arrêter le TV avec la touche **M/A**.
- Tout en appuyant sur les touches **PR -** et **VOL -** , mettre le TV en service à l'aide de la touche **M/A**.
- Maintenir enfoncées les touches **PR -** et **VOL -**.
Le menu suivant apparaît.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Note :

En mode service:
- *Le verrouillage parental est effacé (réinitialisé).*
- *La fonction de verrouillage (Pin number) est ignorée.*
- *La programmation des heures «reveille/matin» est annulée.*
- *Possibilité de passer en mode service avec commutation lente active.*
- *AV- Link , la détection WSS, l'EPG et le Vidéotexte ne sont pas validés.*
- *La fonction de stand-by automatique en cas d'absence de signal d'antenne n'est pas validée.*
- *Les valeurs de réglages usine sont affectées au contraste, à la couleur et à la lumière.*
- *Le contour est appelé à sa valeur moyenne.*
- *L'expansion contraste est au niveau bas.*
- *Le mode d'installation et l'ambiance «Light sensor» ne sont pas valides.*
- *Zoom et format ignorées.*

2 SORTIE TEMPORAIRE DU MODE SERVICE

- Utiliser la touche Exit de la télécommande.
- Le menu utilisateur peut être accessible via la touche «Menu».

- Pour entrer à nouveau dans le mode service utiliser la touche bleue.

3 SORTIE DEFINITIVE DU MODE SERVICE

télécommande | **clavier du téléviseur** | **Inter M/A ou Stand-by**

- Aller au point «QUIT» dans le menu principal du mode service.
- Appuyer sur «<», «OK» ou «>»
-Appuyer sur «VOL+»
- Mode TV.

- Foncion Stand-by ou «off» par M/A

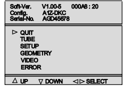
Les valeurs ou réglages non mémorisées avant la sortie ne seront pas écrites en NVM.

SERVICE - MODE (D)

1 EINSTIEG IN DEN SERVICE MODE

Zugriff über die Tastatur des Fernsehgeräts

- **Fernsehgerät** über die EIN/AUS - Taste ausschalten.
- Gleichzeitig die Tasten PR- und VOL- drücken und den TV über die EIN/AUS-Taste einschalten.
- Die Tasten PR- und VOL - gedrückt halten.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Anmerkung :

Im SERVICE MODE :
- *wird die Sperrfunktion (PIN-Nummer) ignoriert und die Kindersicherung gelöscht (reinitialisiert).*
- *werden alle Ein- und Ausschaltzeitgeber gelöscht.*
- *wird die SCART - Scaltspannung ignoriert.*
- *werden AV- Link WSS, EPG und Teletext gesperrt*
- *wird die Automatische Abschaltung bei fehlendem Antennensignal gesperrt.*
- *werden Kontrast, Farbe und Helligkeit auf standardwerte gesetzt.*
- *wird die bildschärfe auf Mittelstellung (nominal) gesetzt.*
- *wird der Kontrast-Expander auf "gering.." gesetzt.*
- *wird der Installations Modus gesperrt.*
- *wird das Standardformat bzw. der Standard-Zoom-modus gewählt.*

2 VORÜBERGEHENDES VERLASSEN DES SERVICE MODE

- Auf der Fernbedienung EXIT drücken.
- Mit der Taste Menü gelangen Sie zum Menü Übersicht

- Mit der blauen Taste gelangen sie zum Service-Menü.

3 ENDGÜLTIGES VERLASSEN DES SERVICE MODE

Fernbedienung | **TV-Bedienfeld** | **EIN /Aus - Taste**

- Wenn der Zeiger im Hauptmenü des Service-Modus auf BEENDEN steht
- Taste «<», «OK» oder «>»drücken
-Taste «VOL+» drücken
- TV Modus

- Mit Standby-Funktion oder EIN/AUS - taste ausschalten

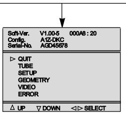
Werte und Einstellungen, die nicht vor dem Verlassen des Service-Modus gespeichert wurden, werden nicht in den Permanentspeicher übernommen

SERVICE - MODE (I)

1 ACCESSO AL SERVICE MODO

tramite i comandi del televisore

- Spegnere il TV mediante il pulsante ON/OFF.
- Premere i tasti **PR-** e **VOL-** accendendo il TV con il pulsante ON/OFF.
- Premere i pulsanti **PR -** e **VOL -**.


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Nota :

Nel service mode:
- *la funzione Blocco (Numero Pin) viene ignorata e la funzione Blocco Bambini è reinizializzata.*
- *Cancellare la programmazione sveglia*
- *Il piedino 8 della scart deve essere ignorato.*
- *I riconoscimenti AV-Link WSS, EPG e televideo devono essere disabilitati.*
- *Funzione automatica di standby, nel caso di mancanza del segnale d'antenna deve essere disabilitata.*
- *Contrasto, colore, luminosità : regolazioni di fabrica.*
- *Nitidezza: media (nominale)*
- *Espansore contrasto troppo basso.*
- *lModo Install disabilitato.*
- *Formato default e zoom.*

2 USCITA TEMPORANEA DAL SERVICE MODE

- Premere Exit sul telecomando.
- Al menu di uso quotidiano si accede attraverso il pulsante Menu.

- É possibile rientrate nel Menu Field Service attraverso il pulsante Blue.

3 USCIRE DAL SERVICE MODE

telecomando | **Panello controllo TV** | **Tasto on/off di**

- Andare al punto QUIT nel Modo Field service del Menu principale
- Premere «<»,«OK» o «>»
- Premere «VOL.+»
- Modo TV.

- Funzione Stand-by o «off» con il tasto on/off

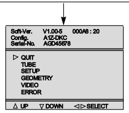
Valori e regolazioni non vengono memorizzati prima di uscire dal Modo service e non vengono scritti nell'NVM

MODO SERVICIO (E)

1 ACCESO AL MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA:PARADA.
- Pulse los botones **PR -** y **VOL -** y sin soltarlos,pulsar la tecla MARCHA:PARADA.
- Libere los botones **PR -** y **VOL -** .


Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT

Nota :

En modo servicio:
- *Se ignora la función de bloqueo y se inicializa la función "cerradura ninos".*
- *Anula todas las horas programadas*
- *La patilla 8 del SCART es ignorada*
- *La detección WSS AV Link, EPG, y Telexto son desactivados.*
- *El apagado automático en caso de ausencia de señal de antena es desactivado.*
- *El contraste,color y brillo son puestos a los valores de fábrica.*
- *la nitidez es puesta al punto medio.*
- *La expansión de contrast al nivel bajo*
- *Modo Instalación es desactivado.*
- *Zoom y formato ignorados.*

2 SALIDA TEMPORAL DEL MODO SERVICIO

- Pulse Salir en el mando a distancia
- Con el botón Menu puede acceder al menú de uso cotidiano.

- Puede entrar al Menú Servicio con el botón azul.

3 SALIDA DEL MODO SERVICIO

telecomando | **Panel de control TV** | **Tecla on/off de**

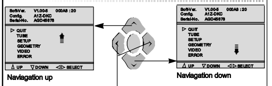
- Vaya al punto QUIT del menú principal de modo Servicio
- Pulse el botón «<»,«OK» o «>»
- Pulse el botón«VOL.+»
- Modo TV.

- Función Stand-by o desconexión (off) con tecla on/off.

Los valores o ajustes no se guardan antes de salir del modo servicio y no se escriben en el NVM

II - NAVIGATION INSIDE THE SERVICE MODE - DEPLACEMENT DANS LE MODE SERVICE SUCHE IN SERVICE MODE - OPZIONI NEL SERVICE MODE - BUSQUEDA EN MODO SERVICIO

1 REMOTE CONTROL - TELECOMMANDE - FERNBEDIENUNG TELECOMANDO - MANDO A DISTANCIA

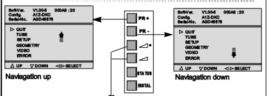

Soft-Ver. V1.00-5 000A8 :20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT
Naviagation up
Naviagation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

- "Change" value
- Wert "änden"
- "Cambiare" valore
- "Cambiar" valor

> → VALUE ↗
< → VALUE ↘

2 TV CONTROL PANEL - CLAVIER TV - TASTATUR DES FERNSEHGERÄTS - COMANDI DEL TELEVISORE -


Soft-Ver. V1.00-5 000A8 :20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
△ UP ▽ DOWN ◁▷ SELECT
PR +
PR -
STATUS
INSTAL
Naviagation up
Naviagation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

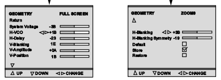
- "Change" value
- Wert "änden"
- "Cambiare" valore
- "Cambiar" valor

Vol. + → VALUE ↗
Vol. – → VALUE ↘

Changing page - Changement de page
Seitenwechsel - Cambiare Pagina - Cambio de página

End of page
Fin de page
Am Seitenende
Fine della pagina
Fin de página

Beginning of Page
Début de page
Am Seitenanfang
Inzio della pagina
Comienzo de página

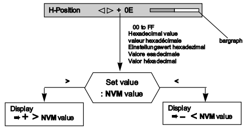

GEOMETRY FULL SCREEN
Return
System Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE
GEOMETRY ZOOM0
△
H-Blanking ◁▷ +3B
H-Blanking Symmetry -19
Default
Store
Restore
△ UP ▽ DOWN ◁▷ CHANGE

« ▽ »
Indicates a following page
Signifie qu'une page suit.
Bedeutet, daß eine Seite folgt
Indica una pagina seguente
Indica una página siguiente

« △ »
Indicates a preceding page
Signifie qu'une page précède.
Bedeutet, daß eine Seite vorangeht
Indica una pagina precedente
Indica una página precedente

- The menu turns the page when the cursor reaches the arrow.
- Amener le curseur sur la ligne repérée par« ▽ » ou « △ » pour passer à la page qui précède ou qui suit.
- Cursor nach « ▽ »,« △ » zum Seitenwechsel
- Il cursor su « ▽ »,« △ » cambia pagina.
- Cursor en « ▽ » ,« △ » cambia las páginas

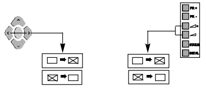
3 DISPLAYING THE VALUE OF THE SETTING - AFFICHAGE DES VALEURS - ANZEIGE DES EINSTELLUNGSWERTS VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE - VISUALIZACION DEL VALOR DE AJUSTE


H-Position ◁▷ + 0E
00 to FF
Hexadecimal value
valeur hexadécimale
Einstellungswert hexadezimal
Valore esadecimale
Valor héxadecimal
bargraph
>
Set value
: NVM value
<
Display
➡ + > NVM value
Display
➡ – < NVM value

4 TOGGLE FUNCTIONS - VALIDATION DES FONCTIONS EIN-UND AUSSCHALT FUNKTIONEN - FUNZIONI DI COMMUTAZIONE - FUNCION CONMUTACION

To enable a function check (tick) ☒ the box.
Pour valider une fonction cocher ☒ la case correspondante
Zum Implementieren einer Funktion das Kontrollkästchen ☒ aktivieren (ankreuzen)
Per implementare una funzione di verifica, (vistare) ☒ la casella
Para poner en fucionamiento una función verifique (señale) ☒ la casilla

☒ : Implemented function ☐ : No implemented function


☐ ➡ ☒
☒ ➡ ☐
PR +
PR -
STATUS
INSTAL

5 STORING VALUES IN MEMORY - MEMORISATION DES VALEURS - SPEICHERN DER WERTE - MEMORIZZAEZ I VALORI - VALORES ALMACENADOS EN LA MEMORIA

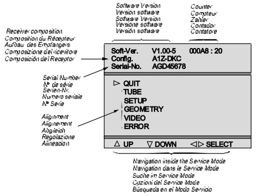
After setting, the values are stored in NVM.
Après réglages les valeurs sont mémorisées en NVM.
Nach dem Einstellen werden die Werte im NVM gespeichert.
Dopo la regolazione i valori vengono memorizzati in NVM.
Después del ajuste, los valores son almacenados en NVM

The box ☐ becomes ☒
During alignment, values are temporarily stored in RAM.
En cours d'alignement les valeurs sont mémorisées temporairement en RAM
Während des Abgleichs werden die Werte vorübergehend im RAM gespeichert
Durante l'allineamento i valori vengono memorizzati provvisoriamente sulla RAM
Durante el alineamento, los valores son almacenados temporalmente en RAM

Store ➡	Copies RAM values into NVM Copie la valeur RAM en NVM Kopieren des Werts von RAM nach NVM Copiare i valori RAM in NVM Copiar valores RAM en NVM
Restore ➡	Copies all values from NVM into RAM. Copie toutes les valeurs des données NVM en RAM Kopiert alle NVM-Datenwerte in den RAM Copiare tutti i valori da NVM sulla RAM Copia todos los valores de NVM a RAM
ROM Default ➡	All the default values of a page in use are stored in RAM. L'ensemble des valeurs par défaut d'une page courante est chargé en RAM. Sämtliche Standardwerte der aktuellen Seite werden im RAM geladen Tutti i valori di default di una pagina in uso vengono memorizzati sulla RAM Todos los valores por defecto de la página en curso están almacenados en RAM.

III - LITE-MENU FOR FIELD SERVICE MODE - MENUS DU MODE SERVICE

1 MAIN MENU - MENU PRINCIPAL


Software Version
Version software
Software Version
Versione software
Versión software
Counter
Compteur
Zähler
Contador
Contatore
Receiver composition
Composition du Récepteur
Aufbau des Empfängers
Composizione del ricevitore
Composición del Receptor
Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
Serial Number
N° de série
Serien-Nr.
Numero seriale
N° Serie
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
Alignment
Alignement
Abgleich
Regolazione
Alineación
△ UP ▽ DOWN ◁▷ SELECT
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Búsqueda en el Modo Servicio

TV CONFIGURATION - CONFIGURATION DU TV - GERÄTEKONFIGURATION - CONFIGURAZIONE DEL TV - CONFIGURACIÓN Y TV

Config. A1Z-DKC

Character 1 : Tube type : «A»= 4/3 , «W» =16/9
Character 2 : Chassis type : «5» = 50Hz, «1»= 100 Hz
Character 3 : Zoom available : «Z»=yes, «-»=not
Character 4 : Ambiant Sensor : «S»= detected, «-»= not
Character 5 : Dolby : «D»=detected, «-»= not
Character 6 : AV Link detected : «K»=IR link detected, «-»= not
Character 7 : Password mode: «C»= Password stored, «-»= not

TIME COUNTER - COMPTEUR DE TEMPS - ZÄHLER - CONTATORE - CONTADOR

The counter indicates the TV's number of service hours.It counts from to 0 to 65535 hours. The display is hexadecimal.

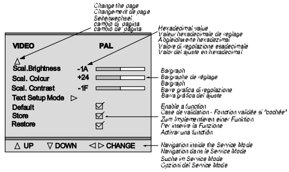
Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.

Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb ist. Die Anzeige ist hexadezimal.

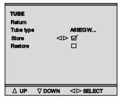
Il contatore indica il numero di ore di servizio del TV. Puo' contatore da 0 a 65535. La visualizzazione è esadecimale.

El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU - SOUS-MENU


Change the page
Changement de page
Seitenwechsel
cambio di pagina
cambio de pagina
Hexadecimal value
Valeur hexadecimale de reglage
Abgleichwerte hexadezimal
Valore di regolazione esadecimale
Valor del ajuste en hexadecimal
VIDEO PAL
△
Scal.Brightness -1A
Scal. Colour +24
Scal. Contrast -1F
Text Setup Mode ▷
Default ☑
Store ☑
Restore ☑
Bargraph
Bargraphe de réglage
Bargraph
Barre grafica di regolazione
Barra gráfica del ajuste
Enable a function
Case de validation - Fonction validée si "cochée"
Zum Implementieren einer Funktion
Per inserire la Funzione
Activar una función
△ UP ▽ DOWN ◁▷ CHANGE
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode

ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION


TUBE
Return
Tube type A66EGW...
Store ◁▷ ☑
Restore ☐
△ UP ▽ DOWN ◁▷ SELECT

TUBE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

Tube type

After replacing the NVM, the correct tube type number must be entered (6 characters). Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list.

Definit le tube exact après changement de NVM. Les nouvelles valeurs de tubes (avec video et géometrie) sont actives de suite. Les paramètres de vidéo et de géométrie sont chargés en NVM lorsque STORE est sélectionné. Voir liste ci-dessous.

Nach dem Tausch des NVM (EEPROM) muß der richtige Bildrohrtyp eingegeben werden. Es werden dann sofort die entsprechenden Geometrie-und Video-Defaultwerte aktiviert. Variable Geometrie-und Videowerte müssen mit "STORE" in das NVM geschrieben werden. Liste der Röhren: siehe unten.

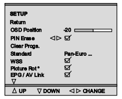
Definire il tubo appropriato dopo aver cambiato la NVM; i valori per il nuovo tipo di tubo (con video e geometria di default) sono immediatamente attivi. I parametri per video e geometria variabili vengono immessi nella NVM quando viene selezionata la funzione Store. Si veda la lista dei tubi riportata sotto.

Definir el tubo correcto después de haber cambiado el NVM.Los nuevos valores de tipo de tubo (con la vídeo y la geometría por defecto) se activan inmediatamente. Los parámetros variables de geometría y vídeo se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

TUBE NAME	LIST	DESCRIPTION
A59EGD048X322	A59EGD	4/3 25" SF(1)
A66EGW 83X122	A66EGW	4/3 28" MP(1)
A66EHJ43X12	A66EHJ	4/3 28" MP(2)
A68EGD036X322	A68EGD	4/3 29" SF(1)
A68EGV036X322	A68EGV	4/3 29" SF(1)
A80EJA16X122	A80EJA	4/3 33" MP(1)
A90AFX15X12	A90AFX	4/3 37" MP(4)
W66EGV023X122	W66EGV	16/9 28" SF(1)
W76EGV023X122	W76EGV	16/9 32"SF(1)
W76EGX023X122	W76EGX	16/9 32"SF(3)
W66LPQ356X99	W66LPQ	16/9 28"XF(5)
W76LPF350X97	W76LPF	16/9 32"XF(5)

Default tube type :
100Hz A66EGW 83X122 : A66EGW
4/3 28"MP, Invar, vector gun, BSVM

(1) : Invar,vector gun, BSVM 100 Hz
(2) : AK, Coty-M 100 Hz.
(3) : Invar , Coty-M gun, BSVM
(4) : Invar , Coty MDF gun , BSVM 100Hz
(5) : Extra Flat Tube, Invar, BSVM 100Hz


SETUP
Return
OSD Position -20
PIN Erase ◁▷ ☑
Clear Progs.
Standard Pan-Euro ...
WSS ☑
Picture Rot * ☑
EPG / AV Link ☑
▽
△ UP ▽ DOWN ◁▷ CHANGE

page 1
• only some models

SETUP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

OSD Position

Adjusts the position of all Megatext OSD.

Règle la position du texte OSD.

Adjusts the position of all Megatext OSD.

Adjusts the position of all Megatext OSD.

Regula la posición del OSD.

PIN Erase Erases all PINs.

☑ PIN active ☐ No PIN active

Selection : Long press:
Press </>/OK: remote control;Vol. +/- :TV keyb.
Automatically stored.

Clear Prog.

Clears all programms stored in memory and resets all Picture and Sound settings to the factory defaults. The AUTO INSTALL (out of factory) mode can be initialised by a long press (>2.5s.) of the selection button.

Efface tous les programmes mémorisés. Valeurs SON et IMAGES: valeurs usines. Fonction valide par une longue pression (>2.5s.) sur la touche de sélection </>.

Löscht alle Programmplätze und setzt alle Bild- und Toneinstellungen auf Fabrikwerte zurück. Der AUTO-INSTALL-Modus kann durch einen langen Knopfdruck (>2,5s) initialisiert werden.

Clear Prog. Cancella tutti i programmi in memoria e regola i Valori analogici SUONO IMMAGINE: allivelli di fabbrica.Riportare la TV al modo Selezione: pressione prolungata: 2,5 sec.

Programa de borrado. Borra todos los programas almacenados en la memoria.Valores analógicos de IMAGEN y SONIDO: valores de fábrica.Regreso a la TV para "salir del modo fábrica".Selección: Presión larga igual a 2,5 s.

Standard "Pan-Euro" or "I".
BG PAL SECAM,L SECAM (France), DKK' SECAM,NTSC M,I PAL (UK/IRELAND)

WSS

Automatic detection of DOLBY surround sound and 16/9 format pictures via Teletext line number 23 is valid on all programmes.

Détection automatique du son surround DOLBY et du format 16/9 via la ligne 23 du Teletxte. Valide pour tous programmes.

WSS (nur bei 16:9 oder Dolby) Auswertung der Zeile 23 zur automatischen Format-und Dolbyumschaltung.

Identificazione "auto-surround" e "format" via televideo alla riga 23.La selezione di WSS Processing vale per tutti i programmi.

Detección "auto-surround" y "format" a través de la línea 23 de Teletext.La selección del procesamiento WSS es válida para todos los programas.

☑ Detection enable ☐ Detection disable

→ After setting → Store (+) ☑

SETUP

Picture Rot

Enables the "Earth Field Correction" function (EFC) on ICC19-MM by adding a special bargraph in the preferences 2 menu. It is necessary to validate this function if the SFBEFC correction circuit is fitted.

Valide la fonction "correction de champ magnétique terrestre" (EFC) sur les chassis ICC19-MM par addition d'un bargraphe spécifique dans le menu 2 des préférences. Cette fonction doit être validée lorsque le circuit de correction "SFBEFC" est monté.

Freigabe der Erdfeldkorrektur (EFC) bei ICC19-MM. Geräten wenn ein SFBEFC-Modul eingebaut ist. Fügt im Menü "Präferenzwerte 2" einen Anzeigebalken hinzu.

Attiva la funzione "Correzione del campo magnetico terrestre" (EFC) sul telaio ICC19- MM, aggiungendo una speciale barra grafica nel menù di preferenza 2. Se il circuito di correzione è montato, è necessario convalidare questa funzione.

Valida la función "corrección del campo magnético terrestre" (EFc) en los chasis ICC19 MM añadiendo una barra gráfica en el menú 2 de preferencias. Es necesario validar esta función si el circuito de corrección SFBEFC está montado.

☑ Rotation bargraph available in picture 2 menu, EFC function active

☐ Rotation bargraph suppressed from picture 2 menu, EFC function disactivated

EPG / AV Link

Enables or disables the option to decode and display EPG program data.

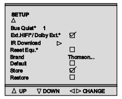
Validation ou inhibition du décodage/affichage des données du programme EPG.

Zulassen oder Nichtzulassen von EPG.

Abilita o disabilita l'opzione di decodifica e visualizzazione dati programmi EPG.

Valida o inhibe la opción de descodificación y visualización de datos del programa EPG.

☑ Available ☐ Not available


SETUP
△
Bus Quiet* 1
Ext.HIFI* / Dolby Ext.* ☑
IR Download ▷
Reset Equ.* ☐
Brand Thomson...
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

page 2
• only some models

SETUP

Bus Quiet

In "Bus Quiet", the NVM can be read, modified and reprogrammed by means of a NVM Programmer. To access "Bus Quiet" : Long press ">". The TV should remain in "Bus Quiet" mode until either Exit, Left, Right, Up,Down or Standby keys on the RCU or local keyboard are pressed; at which point the TV should carry out a warmstart in order to prevent differences between the NVM and RAM contents. After returning from Bus Quiet, the software checks the NVM content. If it is not valid, the software perform a new default writing of the NVM content.

En mode Bus Quiet la NVM peut être lue, modifiée et reprogrammée. Accès au mode Bus Quiet : Longue pression ">". Utiliser l'une des touches Exit, Gauche, Droite Haut, Bas, standby ou une des touches du clavier pour sortir le téléviseur du mode bus quiet. A partir de ce point de sortie le démarrage du téléviseur s'effectue à chaud pour éviter toute différence des contenus RAM et NVM. En sortie de mode bus quiet, le logiciel contrôle le contenu de la NVM. S'il n'est pas correct le logiciel exécute une nouvelle écriture par défaut de celle-ci.

Im "Bus Quiet"-Modus kann der Inhalt des NVM mittels eines externen NVM-Programmiergerätes ausgelesen, geändert oder neu programmiert werden. "Bus Quiet" wird einem längeren Druck auf ">" aktiviert. Das Gerät bleibt solange im "Bus Quiet" -Mode, bis durch Druck auf die EXIT-, LINKS-, RECHTS-, HOCH-, RUNTER- oder STANDBY-Taste (am Gerät oder auf der Fernbedienung) ein Warmstart des Gerätes veranlaßt wird, um unterschiedliche Daten in RAM und NVM zu vermeiden. Es folgt ein Software-Check des NVM-Inhaltes. Sollte dieser nicht gültig sein, wird der Inhalt mit Default-Werten überschrieben.

In Modo Bus Quiet, la memoria NVM può essere letta, modificata o riprogrammata. Per accedere al modo Bus Quiet premere a lungo il tasto ">". Il TV dovrebbe rimanere in modo Bus Quiet fino a che vengono premuti i tasti Exit, o Destro Sinistro, Su o Giù o Standby dal telecomando o dalla tastiera locale; a questo punto il TV dovrebbe ripartire per evitare interferenze tra i contenuti della memoria NVM e della RAM. All'uscita dal modo Bus Quiet, il software controlla il contenuto della memoria NVM. Se tale contenuto non è valido, il software provvede a una nuova programmazione della NVM con l'inserimento dei dati di default.

En bus quieto, la NVM puede ser leída, modificada y reprogramada. Acceso a bus quieto : Larga presión en ">" El TV permanecerá en bus quieto hasta que se pulse cualquiera de las teclas siguientes: Exit, "<", "Ÿ", "/", ">"o Standby del telemando o del teclado. En este momento el TV arrancará para evitar cualquier diferencia entre los contenidos de la RAM y NVM. Al salir del modo bus quieto, el software comprueba el contenido de la NVM. Si no coincide, el software ejecuta la escritura de los datos en la NVM.

☑ Bus Quiet enable ☐ Bus Quiet disable

→ After setting → Store (+) ☑

SETUP

EXT.HIFI / Dolby Ext.

Dolby internal; not available on Normal Sound TV's

☑ Dolby with External Loudspeaker. ☐ Dolby with Internal Loudspeakers.

External HIFI Not available on Dolby TV's

☑ External HIFI control ☐ Normal sound control

IR Download

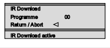
Download screen for receiving mapping via IR data.

Ecran de chargement pour réception "mapping" via IR data

Laden des Programmschemas per AV-Link

Trasferimento IR Trasferire schermo per ricezione mappatura via dati IR

Descarga de IR Pantalla de descarga para recibir el mapeado a través de los datos IR.


IR Download
Programme 00
Return / Abort ◁
IR Download active

"Programme 00" : function is active or finished. Return / Abort : To exit/Abort the menu press "left" arrow key or Volume - key of keyboard. All other IR commands have no response.

"Programme 00" : Fonction active ou finie. Return / Abort : Pour sortir du menu appuyer sur la touche "gauche" ou "Volume -" du clavier. Les autres commandes IR sont sans réponse;

"Programme00":Funktion ist aktiv oder beendet "Return/Abort": Beenden oder Abbruch der Funktion durch Drücken der linken Pfeiltaste oder "Lautstärke-" am Gerät.Alle anderen Tasten haben keine Funktion.

Programma 00: la funzione è attiva o finita. Return/Abort: per uscire dal menu, premere il tasto "sinistra" del telecomando o il tasto Volume- della tastiera. Tutti gli altri comandi IR sono senza risposta.

"Programme00" : función activa o terminada. "Return / Abort" : para salir / abortar, pulsar la tecla "flechaizquierda" o la tecla "volumen -" del teclado. Todos los demás comandos IR son inoperantes

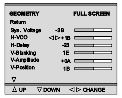
Reset Equ.	Reset Equaliser Not available Non disponible

Brand*

Set the "Brand": Thomson, Telefunken, Other

Factory adjusted
Reserve au reglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas
Press </>: remote control; Vol. +/- : TV keyb.

→ After setting → Store (+) ☑


GEOMETRY FULL SCREEN
Return
Sys. Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

page 1
[illegible]

GEOMETRY

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

System Voltage

Only possible via the local keyboard Vd +/- .

TUBE NAME	DESCRIPT.	Ueys
A59EGD048X322	4/3 25" SF	137V +/- 0.5V
A66EGW83X122	4/3 28"MP	137V +/-0.5V
A66EHJ43X12	4/3 28" MP	134V +/- 0.5V
A68EGD036X300/322	4/3 29" SF	137V +/-0.5V
A68EGV036X322	4/3 29" SF	137V +/-0.5V
A80EJA16X122	4/3 33" MP	137V +/- 0.5V
A90AFX15X12	4/3 37" MP	137V =/-0.5V
W66EGV023X122	16/9 28" SF PANORAMA	134V +/- 0.5V 140V +/- 0.5V
W76EGV023X122	16/9 32"SF PANORAMA	134V+/- 0.5V 140V +/- 0.5V
W76EGX023X122	16/9 32"SF	140V +/- 0.5V
W66LPQ356X99	16/9 28" XF	140V +/- 0.5V
W76LPF350X97	16/9 32" XF	140V +/- 0.5V

H-VCO Horizontal - VCO Oscillator.

Adjust the value of H-VCO until the speed of the unsynchronised picture becomes stable. (i.e minimum roll).

Agir sur H-VCO pour obtenir une image la plus proche de la synchronisation

H_VCO auf Schwebung abgleichen.

Regolare l'H_VCO finché l'immagine non sincronizzata avrà raggiunto la velocità minima.

Ajuste H_VCO hasta que la imagen no sincronizada alcance su velocidad más baja.

default value = 0FH

Press </>: remote control; Vol. +/- : RP keyb.

H-Delay Horizontal delay Use "+" and "-" to adapt the image

V-Blanking

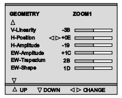
1-Adjust V-Amp. for a 107% over scanned picture.
2- Reduce V-Blanking for visible lines top and bottom of screen.
3-Increase step by step V-Blanking until at the cut- off lines at the top and bottom of the screen disappears.
4- Increase one more step
5- Next adjust the V-Amp. and V-Position.

1-V-amp. amplitude verticale suffisante (>7% overscan)
2- réduire V-blanking:visible en haut et bas.
3-Agir étape par étape jusqu'à disparition du blanking en bas d'image et des lignes de cut-off en haut d'écran
4- Augmenter d'une valeur.
5- Faire un réglage fin de V-amp. et V-position

1- Voreinstellung der V-amp auf: >7% Überschreibung.
2- Reduzieren Sie V-Blanking soweit bis die ersten geschriebenen Zeilen am oberen Bildrand sichtbar werden.
3- Erhöhen Sie V-Blanking Schritt für Schritt bis die Cut-Off Meßzeilen gerade am oberen Bildrand verschwinden.
4- Erhöhen Sie V-Blanking um eine Stufe.
5- Feineinstellung von V-amp und V-position.

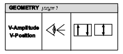
1- Ampiezza verticale: grande a sufficienza (7% di sovrascansioni)
2- Riduzione della soppressione verticale: visibile in alto e in basso
3- Aumentare passo/passo: finchè le linee di cut off nella parte alta dello schermo scompaiono.
4- Aumentare ancora di un passo
5- Regolare con precisione l'ampiezza e la posizione verticali

1- Amplitud V: suficientemente grande (7% de sobreexploración)
2- Reducir el borrado V: visible en las partes superior e inferior.
3- Aumentar el paso a paso: el borrado en la parte inferior y las líneas de cut-off en la parte superior desaparecen.
4- Aumentar de otro paso.
5- Ajustar finamente la amplitud V y la posición V.

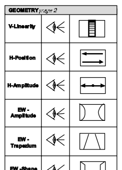

GEOMETRY ZOOM1
△
V-Linearity -3B
H-Position ◁▷+0E
H-Amplitude -19
EW-Amplitude +1C
EW-Trapezium 2B
EW-Shape 1D
▽
△ UP ▽ DOWN ◁▷ CHANGE

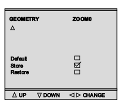
page 2
[illegible]

GEOMETRY page 1



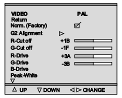
GEOMETRY page 2




GEOMETRY ZOOM0
△
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

page 3

→ After setting → Store (+) ☑


VIDEO PAL
Return
Norm. (Factory) ☑
G2 Alignment ▷
R-Cut off +1B
G-Cut off -1F
R-Drive +3A
G-Drive -3B
B-Drive
Peak-White
▽
△ UP ▽ DOWN ◁▷ CHANGE

page 1
[illegible]

VIDEO PAL

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

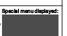
Press </>: remote control; Vol. +/- : TV keyb.

Norm. (Factory)

Recalls the factory settings for Colour, Brightness, Contrast, Sharpness and sets Contrast Expand to "LOW".

☑ Factory settings recalled
☐ User settings kept.

G2 Alignment Special menu displayed:



RGB cut-off counters

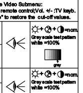
Initially set R_Cut-Off and G_Cut-off to 80H

Adjust the lowest value with SCREEN poentiometer to:

Tube Type	Value	Tube Type	Value
A59EGD	50H	A90AFX	50H
A66EGW	60H	W66EGV	50H
A66EHJ	50H	W66LPQ	50H
A68EGD	50H	W76EGV	60H
A68EGV	50H	W76EGX	60H
A80EGV	60H	W76LPF	60H
A80EJA	60H		

To return to the Video Submenu:
Press </>/OK: remote control;Vol. +/- :TV keyb.
Select "Restore" to restore the cut-off values.

R-Cut off*
G-Cut off*
R - Drive
G - Drive
B - Drive


☼ + ◑ + ◐ =nom.
Grey scale test pattern white =100%
grey
☼ + ◑ + ◐ =nom.
Grey scale test pattern white =100%
white

Peak-White**

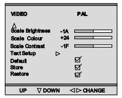
☼ + ◐ + ◑ =nom.

Peak white test pattern white =100%
Colourimeter

Tube Type	[Nits]	Tube Type	[Nits]
A59EGD	400	A90AFX	-
A66EHJ	300	W66EGV	480
A66EGW	370	W66LPQ	450
A68EGD	350	W76EGV	380
A68EGV	-	W76EGX	380
A80EJA	350	W76LPF	350

→ After setting → Store (+) ☑

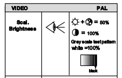
Note :
* adjust separate for PAL/NTSC/SECAM and RGB/AV
** After PEAK white adjustment control cut off setting. Repeat the adjustments if necessary.


VIDEO PAL
△
Scale Brightness -1A
Scale Colour +24
Scale Contrast -1F
Text Setup ▷
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

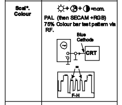
page 2
[illegible]

VIDEO PAL

Scal. Brightness



Scal*. Colour



Scal. Contrast factory settings.

Text Set-up Mode ☼ + ◑ + ◐ =nom.

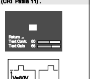
Set Text Contr. to 80H. Adjust Text Gain for V=80V at pin 11 (Blue) of the CRT

Mettre Text Contr. à la valeur 80H. Ajuster Text Gain pour obtenir un niveau de sortie V=80V sur la cathode Bleue du tube (point 11 de la CRT).

Stellen Sie Text Contr. auf 80H ein. Stellen Sie mit Text Gain V=80V an der Blau-Kathode (Pin 11) der Bildröhre ein.

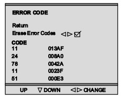
Regolare il contrasto televideo a 80H. Regolare il guadagno contrasto televideo per ottenere al catodo del blu un livello pari a V=80V (CRT pin 11).

Poner el Text Contr. a 80H. Ajuste Text Gain para dejar V=80V en azul del TRC (CRT Patilla 11) .



CRT Pin 11

→ After setting → Store (+) ☑


ERROR CODE
Return
Erase Error Codes ◁▷ ☑
CODE
11 013AF
24 008A0
78 0042A
11 0023F
51 000E3
UP ▽ DOWN ◁▷ CHANGE

ERROR CODE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

Erase Error Codes To clear all error codes stored in the NVM. Action: Long press (> 2.5sec.).
Press </>/OK: remote control;Vol. +/- :TV keyb.

CODE LED Error Codes

The last five error codes are stored and displayed as they occured in real time, the most recent error code is displayed on the top line. A repeated top line error code has its real time count updated. There are 27 different error codes, which are signalled by the TV's Standby LED, ranging in value from 11 to 49 hex. The error code is displayed as two separate digits separated by a suitable pause, this is repeated until the either the TV fixes the fault or the TV is repaired.
For example Error-code : 23 will be displayed thus :
2 flashes and a short pause
3 flashes and a long pause
....
List of Errors Codes : see table

Mémorise les cinq derniers codes erreurs et affiche en haut d'écran les plus récents.
27 codes erreurs différents sont signalés par deux digits selon une séquence spécifique
Exemple :
Code erreur : 23 affiché
2 flashes, courte pause
3 flashes : longue pause
....
Voir ci-contre la liste des codes erreurs

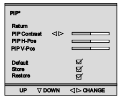
Zeigt die letzten 5 Fehlercodes mit der Laufzeit an. Der zuletzt aufgetretene Fehler steht an erster Stelle. Sollte ein Fehler wiederholt auftreten wird nur die Laufzeit aktualisiert. Die Fehlercodes können im Menü Error Code angezeigt werden oder über die Kontroll LED angezeigt werden;

Beispiel für die Anzeige über die Kontroll LED:

Fehlercode 23 :
Zweimaliges Blinken der LED, kurze Pause.
Dreimaliges Blinken der LED, lange Pause.
Auflistung der Fehlercodes : siehe Liste

Memorizza gli ultimi cinque codici d'errore (differenti tra loro) dopo che ognuno di essi si verrà visualizzato (attraverso il contatore della durata di esecuzione). L'errore più recente viene visualizzato in cima. La ripetizione del codice di errore in cima alla lista non farà altro che aggiornare la durata di esecuzione. Dal LED del TV vengono segnalati 27 codici d'errore differenti, numerati da 11 a 44. Il codice d'errore è indicato da due cifre separate da un opportuno intervallo di tempo e verrà ripetuto fino a quando il televisore non sarà stato riparato o non si sarà corretto da solo.
Ad es:
Il codice d'errore 23 visualizzerà:
2 segnali luminosi con pausa breve
3 segnali luminosi con pausa lunga
Per la lista dei Codici d'Errore, si veda la tabella

Guarda los últimos cinco códigos de error cuando cada uno ocurre (gracias al contador de tiempo de ejecución). El error más reciente se visualiza en la parte superior. Una repetición del código de error en la parte superior de la lista solamente actualiza el tiempo de ejecución. El indicador TV LED indica 27 códigos de error diferentes: de 11 a 44. El código de error se señala en forma de dos dígitos separados con una pausa apropiada entre los dos y se repetirá hasta que repare el TV o él se repara a sí mismo.
Por ejemplo,
Se va visualizar el código de error 23:
2 parpadeos, una pausa corta;
3 parpadeos, una pausa larga.
Para la Lista de códigos de error, consulte la tabla.


PIP*
Return
PIP Contrast ◁▷
PIP H-Pos
PIP V-Pos
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

• only PIP models

PIP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

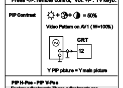
Schließt das Untermenü, und das Feldservicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </>: remote control; Vol. +/- : TV keyb.

PIP Contrast


☼ + ◑ + ◐ = 50%
Video Pattern on AV1 (W=100%)
CRT
12
Y PIP picture = Y main picture

PIP H-Pos - PIP V-Pos

Factory adjustments.These adjustments are optimized by software. Used only if necessary.

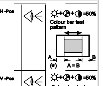
Réglages usines. Ces réglages sont optimisés par le software. Ils ne sont à utiliser que si nécessaire.

Factory adjustments.These adjustments are optimized by software. Used only if necessary.

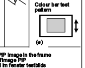
Factory adjustments.These adjustments are optimized by software. Used only if necessary.

Ajustes de fábrica. Estos ajustes están optimizados por software. Utilizar sólo en caso necesario.

PIP H -Pos



PIP V -Pos



(*) Center PIP image in the frame
Centrer l'image PIP
PIP -bild im fenster testbilds
Centrare l'immagine PIP sullo schermo
Centre la imagen PIP en el marco

→ After setting → Store (+) ☑

ERROR CODES

GB

11 1st Audio_MSP doesn't answer
12 2nd Audio-MSP doesn't answer
13 Audio-DSP doesn't answer
14 Video IC STV2161/2 doesn't answer
15 Chroma IC 2151/9143 doesn't answer
16 Upconverter DMU0 doesn't answer
17 Audio (or Dolby) module not detected
18 SCART IC TEA6415C doesn't answer
19 Tuner CTT5000 doesn't answer
21 I2C Bus1 data line held low
22 I2C Bus2 data line held low
23 I2C Bus1 clock line held low
24 I2C Bus2 clock line held low
25 Switched 5V not available
26 Tube doesn't get warm in time
27 Deflection detects >3 times protection (problem detected on "breathing" line)
29 DRAM memory of Megatext defect
31 RAM is full
32 A Software-timer has been requested, bus is not available yet
33 The PSI chip (STV2165) doesn't answer
34 The NVM (X24C32) chip doesnt answer
35 13V not available
36 Wrong addr. NVRAM passed to the bus-handler
37 Unexpected level on NMI (Interrupt) line found (possible cause : tube flashover)
38 M3LBus for Megatext is blocked
39 Megatext (SDA5273) doesn't answer
41 Bus1 Data Line not recoverable
42 bus2 Data Line not recoverable
43 MCU (Motion Mastering Up-Converter) doesn't answer
45 Defect "Video Module" is detected
51 PIP Module doesn't answer.
52 The Teletext module is not conform .

F

11 Processeur Audio MSP ne répond plus
12 Deuxième MSP ne répond plus (Dolby)
13 Audio-DSP ne répond plus (produit Dolby)
14 Video-IC STV2161 ou 2162 ne répond plus
15 Chroma-IC STV2151 ou TDA9143 ne répond plus
16 Convertisseur de frequence d'image digital DMU0 (Intelligent Mastering) ne répond plus
17 Module son (ou Dolby) n'est pas détecté
18 Commutateur SCART TEA6415C ne répond plus
19 Tuner CTT5000 ne répond plus
21 I2C-bus 1 data bloqué au niveau bas
22 I2C-bus 1 data bloqué au niveau bas
23 I2C-bus 2 clock bloqué au niveau bas
24 I2C-bus 2 clock bloqué au niveau bas
25 Le "5V commuté" n'est pas disponible
26 Tube ne chauffe pas a temps
27 Plus que 3-fois la déflection a détecté une "protection" (c'est-a-dire qu'il y a un problème détecté sur la ligne "breathing")
29 Mémoire (DRAM) du Megatext est en panne
31 Plus de place en RAM
32 Requète logiciel-timer demandée mais pas encore disponible
33 STV 2165 (PSI 100Hz) ne répond plus
34 NVM (mémoire) X24C32 ne répond plus
35 +13V n'est pas disponible
36 Adresse NVRAM inconnue
37 Problème détecté sur la ligne "interrupt" pendant le démarrage ou le fonctionnement du TV. Possibilité: "arking"?
38 Bus M3L pour Megatext est bloqué
39 Megatext (SDA5273) ne répond plus
41 I2C-bus 1 data reste bloqué
42 I2C-bus 2 data reste bloqué
43 MCU (convertisseur de frequence d'image digital: Motion Mastering) ne répond plus
45 "Vidéo Module" erroné détecté
51 Le module PIP ne répond plus.
52 Le Module Text (DVT) n'est pas le bon.

D

11 Audio MSP Prozessor antwortet nicht.
12 Zweiter Audio MSP Prozessor antwortet nicht.(Dolby)
13 Audio DSP Prozessor antwortet nicht. (Dolby)
14 IC STV2161/62 antwortet nicht
15 IC STV2151 / TDA9143 antwortet nicht
16 DMU0 Upconverter (Videomodul) antwortet nicht
17 Audio- oder Dolby-Modul nicht erkannt
18 TEA6415C antwortet nicht (SCART-Schalter)
19 Tuner CTT5000 antwortet nicht
21 I2C Bus1 data line ist auf low
22 I2C Bus2 data line ist auf low
23 I2C Bus1 clock line ist auf low
24 I2C Bus2 clock line ist auf low
25 Geschaltete 5V nicht vorhanden
26 Röhre wird nicht rechtzeitig warm
27 Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29 DRAM des Megatext defekt
31 RAM antwortet nicht
32 Ein software-timer wurde angefordert,ist aber noch nicht bereit
33 STV 2165 (PSI 100Hz) antwortet nicht
34 NVM Chip antwortet nicht (X24C32)
35 +13V nicht vorhanden
37 Unerwarteter Zustand an NMI (interrupt) line gefunden. (Mögliche Ursache = Röhren-Überschlag")
38 M3L Bus des Megatext blockiert
39 Megatext (SDA 5273) antwortet nicht
41 Bus1 (data line) nicht möglich zu reaktivieren
42 Bus2 (data line) nicht möglich zu reaktivieren
43 MCU (Motion Mastering Up-Converter) antwortet nicht
45 falsches Videomodul (falscher MCU)
51 PIP antwortet nicht
52 Falsches Videotextmodul.

I

11 Il primo IC Audio MSP non risponde
12 Il secondo IC Audio MSP non risponde
13 L'integrato Audio DSP non risponde
14 L' IC 2161/2 non risponde
15 L'IC 2151/9143 non risponde
16 Il convertitore non risponde
17 Il Modulo Audio non viene identificato
18 Il TEA6415C non risponde
19 Il sintonizzatore non risponde
21 Linea data I2C bus 1 forzata bassa
22 Linea data I2C bus 2 forzata bassa
23 Linea clock I2C bus 1 forzata bassa
24 Linea clock I2C bus 2 forzata bassa
25 La tensione 5V commutati non disponibile
26 Il tubo non raggiunge la corretta temperatura nel tempo stabilito
27 Per 3 volte, la deflessione ha rilevato una protezione (problema riscontrato dalle linee "breathing")
29 Difetto alla DRAM di Megatext
31 La RAM è satura
32 E'stato richiesto un software-timer, ma non é ancora disponible
33 Il chip PSI non risponde
34 Il chip NVM non risponde
35 13V non disponibile
37 Livello imprevisto sulla linea NMI
38 Bus M3L per Megatext bloccato
39 Megatext non risponde
41 Bus 1 (linea dati) non ripristinabile
42 Bus 2 (linea dati) non ripristinabile
43 MCU non risponde
45 rivelato Modulo Video difettoso
51 Il Modulo PIP non viene identificato
52 Il modulo Televideo non è conforme

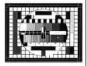
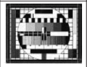
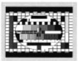
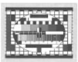
E

11 Procesador de audio MSP no responde
12 Segundo MSP no responde (Dolby)
13 Audio DSP no responde
14 Cir.integrado de video STV2161 ó 2162 no responde
15 Cir.integrado croma ST2151 ó TDA9143 no responde
16 Convertidor de frecuencia de imagen digital DMU0 (Mastering Inteligente) no responde
17 Módulo de sonido (o Dolby) no se detecta
18 Conmutador Scart (TEA6415C) no responde
19 Tuner CTT5000 no responde
21 Data 1 del bus I2C permanece en bajo
22 Data 2 del bus I2C permanece en bajo
23 Clock 2 del bus I2C permanece en bajo
24 Clock 2 del bus I2C permanece en bajo
25 No se dispone de los "5v conmutados"
26 El tubo tarda en calentarse
27 La protección de la deflexión actúa mas de 3 veces (el problema se detecta en la línea de "breathing")
29 La memoria DRAM del Megatext está defectuosa
31 RAM está llena
32 Un timer-software ha sido solicitado,pero no está disponible
33 El chip STV2161 (PSI 100Hz) no responde
34 La memoria no volátil X24C32 no responde
35 No están disponibles los + 13 v.
37 Problema detectado en la línea "interrupt" durante el arranque o el funcionamiento del TV.Posibilidad de chispazos en muy alta?
38 El bus M3L para el Megatext está bloqueado
39 Megatext (SDA5273) no responde
41 Data 1 del bus I2C permanece boqueado
42 Data 2 del bus I2C permanece bloqueado
43 MCU (convertidor de frecuencia de imagen digital: Motion Mastering) no responde
45 Fallo detectado en el módulo de Video
51 El módulo PIP no responde
52 El módulo Teletexto no es conforme

GEOMETRY MODE ALIGNMENT - 100Hz VERSION

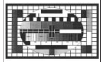
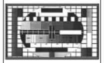
4/3 picture tube

Signal : 4/3 test pattern

4 / 3 standard mode zoom 0		100Hz Version : overscan V=107% , H=107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity 3- Adjust Horizontal Position and Horizontal Amplitude 4-Adjust EW Amplitude ,EW Shape and Trapezium
<4/3> zoom 1		100 Hz Version : overscan V=120% , H=120%
16 / 9 standard mode zoom 0		Adjust the vertical height until V = 80%
<16 / 9> zoom 1		Adjust the vertical height : V =90%

16/9 picture tube

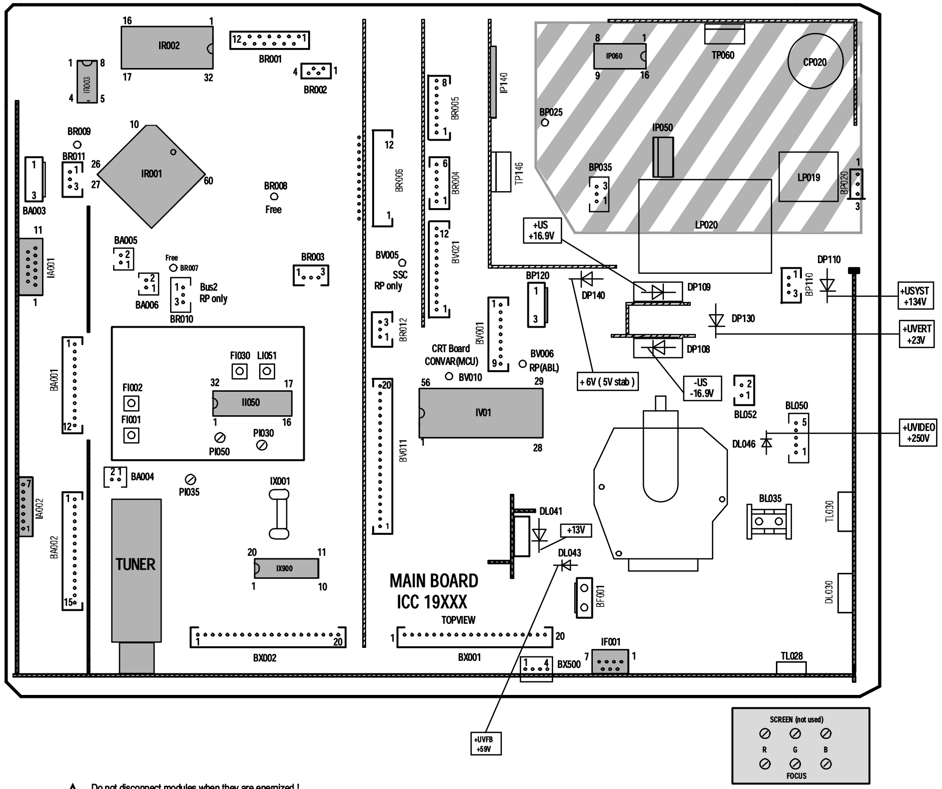
Signal : 4/3 test pattern

16 / 9 standard mode zoom 0		100Hz Version : overscan V=107%, H =107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity 3- Adjust Horizontal Position and Horizontal Amplitude 4-Adjust EW Amplitude ,EW Shape and Trapezium
4 /3 PANORAMA mode		100Hz Version : Mode PANORAMA overscan V=114%, H =107% 1- Adjust Vertical Amplitude and Horizontal Amplitude 2- Adjust Horizontal Position EW Amplitude

MC-Service

LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - SERVICE LAGEPLAN - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES

MAIN BOARD - PLATINE PRINCIPALE - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES


IR002
BR001
BR002
IR003
BR009
IR001
BR011
BR008
Free
BA003
BA005
BR007
BR003
BA006
Bus2
RP only
BR010
IA001
FI030
LI051
FI002
II050
FI001
PI030
PI050
BA004
PI035
IX001
IA002
TUNER
IX900
BX002
BR006
BR005
BR004
BV005
SSC
RP only
BV021
BR012
CRT Board
CONVAR(MCU)
BV010
BV006
RP(ABL)
BV001
BV011
IV001
IP140
TP146
IP060
TP060
CP020
BP025
IP050
BP035
LP019
LP020
BR020
+US
+16.9V
BP120
DP140
DP109
DP110
BP110
+USYST
+134V
DP130
DP108
+UVERT
+23V
+6V (5V stab)
-US
-16.9V
BL052
BL050
DL046
+UVIDEO
+250V
BL035
TL030
DL041
+13V
DL043
MAIN BOARD
ICC 19XXX
TOPVIEW
BF001
DL030
BX001
BX500
IF001
TL028
+UVFB
+59V
SCREEN (not used)
R
G
B
FOCUS

⚠ Do not disconnect modules when they are energized !
Repairs on power supply section are to be carried out
only with isolating transformer.

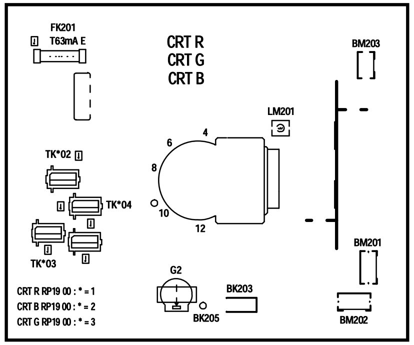
Ne pas retirer les modules lorsqu'ils sont sous tension.
N'effectuer les travaux de maintenance sur la partie
reliée au secteur (Switch mode) qu'au travers d'un
transformateur d'isolement.

Module nicht bei eingeschaltetem Gerät entfernen !
Servcearbeiten am Netzteil nur unter Verwendung eines
Regeltrenntrafos durchführen.

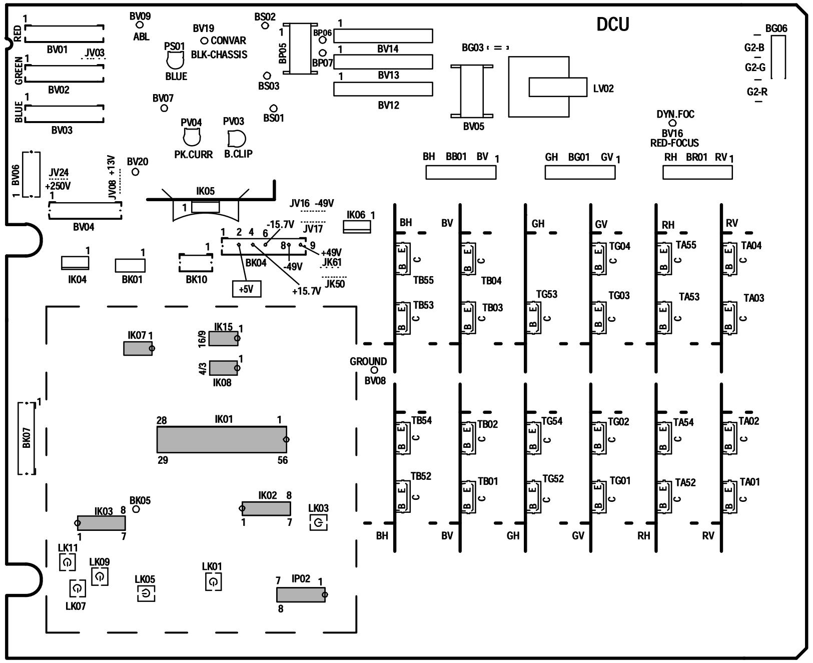
Non scollegare i moduli quando sono alimentati !
effettuare riparazioni sulla sezione alimentatore solo
con transformatore isolante.

No desconectar los módulos cuando están activados !
Las reparaciones en la sección de alimentación de energia
deben ser ejecutadas solamente con un transformador de
separacíon.

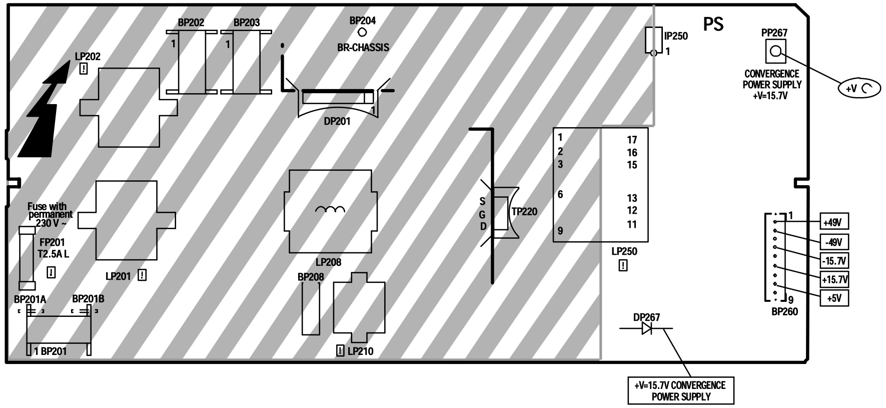
▨ Part of Board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseitedes Netzteils
Parte del pannello collegato alla rete di alimentazione
Parte del chasis conectada a la red


FK201
T63mA E
CRT R
CRT G
CRT B
BM203
LM201
TK*02
TK*04
TK*03
G2
BK203
BK205
BM201
BM202
CRT R RP19 00 : * = 1
CRT B RP19 00 : * = 2
CRT G RP19 00 : * = 3

DIGITAL CONVERGENCE UNIT - PLATINE DE CONVERGENCE NUMERIQUE - DIGITALE KONVERGENZEINHEIT - UNITÀ DI CONVERGENZA DIGITALE - UNIDAD DE CONVERGENCIA DIGITAL

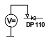
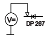
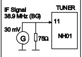
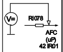
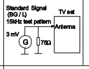
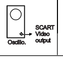
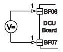

DCU
RED
GREEN
BLUE
BV01
JV03
BV02
BV03
BV09
ABL
BV19
CONVAR
BLK-CHASSIS
PS01
BLUE
BV07
PV04
PK.CURR
PV03
B.CLIP
BS02
BP05
BP06
BP07
BS03
BS01
BV14
BV13
BV12
BG03
BV05
LV02
BG06
G2-B
G2-G
G2-R
DYN.FOC
BV16
RED-FOCUS
BV06
JV24
+250V
JV08 +13V
BV20
BV04
IK05
JV16 -49V
IK06
-15.7V
JV17
+49V
JK61
-49V
JK50
+15.7V
+5V
BK04
IK04
BK01
BK10
IK07
IK15
16/9
4/3
IK08
IK01
BK07
BK05
IK03
IK02
LK03
LK11
LK09
LK07
LK05
LK01
IP02
GROUND
BV08
BH
BB01
BV
GH
BG01
GV
RH
BR01
RV
TB55
TB04
TB53
TB03
TG04
TG53
TG03
TA55
TA04
TA53
TA03
TB54
TB02
TG54
TG02
TA54
TA02
TB52
TB01
TG52
TG01
TA52
TA01

DIGITAL CONVERGENCE UNIT POWER SUPPLY - ALIMENTATION PLATINE DE CONVERGENCE NUMERIQUE - NETZTEIL KONVERGENZEINHEIT - ALIMENTAZIONE UNITÀ DI CONVERGENZA DIGITALE- ALIMENTACIÓN UNIDAD DE CONVERGENCIA DIGITAL


PS
BP202
BP203
BP204
BR-CHASSIS
LP202
IP250
PP267
CONVERGENCE
POWER SUPPLY
+V=15.7V
+V
DP201
Fuse with
permanent
230 V ~
FP201
T2.5A L
LP201
TP220
S
G
D
LP208
BP208
LP250
BP201A
BP201B
BP201
LP210
+49V
-49V
-15.7V
+15.7V
+5V
BP260
DP267
+V=15.7V CONVERGENCE
POWER SUPPLY

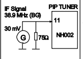
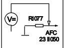
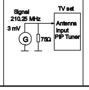
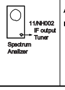
MC-Service

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

U Sys	SERVICE MODE	Standard TV - Settings : ☼ + ◕ + ◑ = 50% TV to AV1 : Black test pattern		
PS Convergence Power Supply	PP67	Standard TV - Settings : ☼ + ◕ + ◑ = 50%		Adjust PP67 : V=15.7V +/- 0.1V
MAIN IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) 30 mV G 75Ω TUNER 11 NH01		Adjust FI30 / PI54 for 2,5VDC +/-0.1V
MAIN VIDEO-LEVEL Alignment	PI030 PI035	 Standard Signal (BG / L) 15kHz test pattern 3 mV G 75Ω TV set Antenna		Adjust PI030 : standard BG Adjust PI035 : standard L V = 0,7 Vpp (Black/white level)
H - VCO	SERVICE MODE	See Adjustment in Service Mode (GEOMETRY Menu)		
DCU Vertical Power Stage Zero	SERVICE MODE V POSITION	Standard TV - Settings : ☼ + ◕ + ◑ = 50%		DC Voltage - V to minimum. (=0 if possible)

TUBE NAME	DESCRIPTION	Usys jumper	Usys
RP - 4/3 RP - 16/9	4/3 46" - 52" 16/9 46" - 52"	JP915	134V +/- 0.5V

RF / IF PART FEP 19100 PIP

IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) 30 mV G 75Ω PIP TUNER 11 NH002		Adjust FI30 for 2,5VDC +/-0.1V
TUNER-AGC	PI050	 Signal 210.25 MHz 3 mV G 75Ω TV set Antenna input PIP Tuner		Adjust PI050 : Maximum level Reduce level with PI50 about 10dB.

U G2 - DEFLECTION YOKE POSITION - CENTERING MAGNETS

To gain access to the Red, Green and Blue G2 Controls, Deflection Yokes or the Adjustment Magnets, proceed as follows :
- Using a suitable screwdriver push the front panel fixing button in the direction shown (Fig 1).
- Carefully pull down the front panel and remove it as shown and store safely.

Pour accéder aux réglages de G2 Rouge, Vert et Bleu , aux déviateurs ainsi qu'à leur aimant de réglages, appuyer en vous aidant d'un tournevis sur l'ergot de maintien du coffret de face avant dans le sens de la flèche et rabattre puis déposer le coffret (Fig.1).

Um Zugang zu den G2-Einstellern (Rot, Grün, Blau), Ablenkeinheiten und Ausgleichsmagneten zu erhalten
- drücken Sie mit einem passenden Schraubendreher den Befestigungsknopf der Frontabdeckung in die angegebene Richtung (Fig.1).
- ziehen Sie die Frontabdeckung vorsichtig nach unten und entfernen sie wie angegeben.

Per accedere alle funzioni controlli G2 Rosso, Verde e Blu, giogo di deflessione e regolazione magneti procedere come indicato, con un apposito cacciavite, premere i tasti di fissaggio del pannello frontale come indicato nella figura (Fig.1).
Piegare il pannello con cura e fissarlo come descritto.

Para tener acceso a los ajustes G2 del Rojo, Verde y Azul, así como a los Yugos de Deflexión y a sus imanes de ajuste, proceder como sigue.
- Utilizando un destornillador adecuado, empujar el botón de fijación del panel frontal en el sentido indicado en la Fig.1.
- Tirar hacia abajo con cuidado del panel frontal y retirarlo como se muestra en la figura.

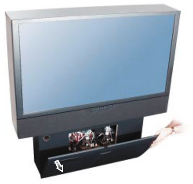
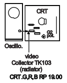
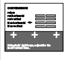


Fig. 1

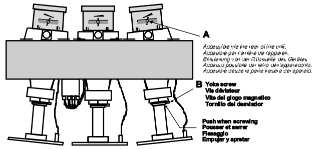
CRT U G2 METHOD 1 Measurment method	G2 potentiometer G2 Red : PV101 G2 Blue : PV201 G2 Green : PV301	Standard TV - Settings : ☼ + ◕ + ◑ = 50% TV to AV1 : Black test pattern	 CRT G2 pot. Oscillo. video Collector TK103 (radiator) CRT.G,R,B RP 19.00	CRT 1 - Adjust VG2 CRT. R : V= 180V 2 - Repeat for : CRT G , CRT B.
METHOD 2 Cutoff counter method SERVICE MODE	SERVICE MODE	Standard TV - Settings : ☼ + ◕ + ◑ = 50% No test pattern (generated by internal text processor).	SERVICE MODE Call up VIDEO alignment menu Initially set R_Cut-off and G_Cut-off to 80H. Select G2 Alignment in Service Mode Adjust the 3 G2 Pot. on 3 CRT Boards for R=28; G=28; B=28 Select "Restore" in Service Mode and press "OK" to restore the cut-off values.	

DEFLECTION YOKE POSITION	Yoke Déviateur	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◑ = 50%	Horizontal line
GREEN DEFLECTION YOKE POSITION	GB	- Loosen the deflection yoke securing screw B (See Fig.1 p.19). - Rotate the deflection yoke until the centre line of the grid pattern is horizontal. - Whilst push the deflection yoke hard up against the tubes bulb, tighten the securing screw B with a non-magnetic driver to a torque of 125 +/- 10cm.Newton's .	- Rotate the Green deflection yoke.
POSITION DEVIATEUR VERT	F	- Dessérer la vis de blocage B (Fig. 1 p.19). - Tourner le déviateur pour obtenir la ligne centrale de la mire la plus horizontale possible. - Pousser le déviateur dans la direction du col, et serrer la vis de blocage B avec un outil non magnétique (125 +/- 10cm.N de couple) . (Voir Fig. 1. p.19).	- Tourner le déviateur Vert.
POSITION DER ABLENKEINHEIT FÜR GRÜN	D	- Lösen Sie die Schraube B der Ablenkspule (Siehe Fig. 1 Seite 19). - Drehen Sie die Ablenkeinheit so, daß die Mittellinie des Gitters horizontal verläuft. - Drücken Sie die Spule fest in Richtung Röhrenkörper, wenn Sie die Schrauben mit einem nichtmagnetischen Werkzeug anziehen (125+/- 10 N/cm Drehmoment) (Siehe Fig. 1 Seite 19).	- Drehen Sie die Ablenkeinheit für "Grün"
POSIZIONE DEL GIOGO DI DEVIAZIONE MAGNETICA VERDE.	I	- Svitare la vite B del giogo magnetico (Vedere illustrazione a pag.19). - Ruotare il giogo di deviazione magnetica in modo che la linea centrale della griglia sia orizzontale. - Spingere energicamente il gioco magnetico verso il bulbo del tubo e serrare la vite del giogo con un utensile non magnetico (utensile dinamometrico 125 +/- 10cm.). Vedere illustrazione 1 a pag.19.	- Ruotare il giogo di deviazione magnetica Verde.
- POSICIÓN DEL DESVIADOR VERDE.	E	- Afloje el tornillo B del desviador (véase el dibujo 1, página 19). - Gire el desviador para que la línea central de la rejilla esté horizontal. - Empuje el desviador con fuerza en la dirección de la bombilla del tubo y ajuste el tornillo del desviador con una herramienta no magnética (125+/-10 cm.N, véase par). Vea el dibujo,página 19.	- Gire el desviador verde.
RED AND BLUE DEFLECTION YOKE POSITION	GB	- Cover the Blue Lens. - Loosen the RED deflection yoke securing screw B and rotate the deflection yoke until the red horizontal centre line is parallel with the green line and tighten the securing screw. - Cover the RED lens and repeat the process for the BLUE deflection yoke.	- Rotate the red and Blue deflection yoke.
POSITION DEVIATEUR ROUGE ET BLEU	F	- Couvrir l'objectif du tube Bleu. - Tourner le déviateur Rouge (voir ci-dessus) pour avoir la ligne centrale horizontale Rouge parallèle à celle de la ligne verte. - Faire de même pour le Bleu.	- Tourner les déviateurs Rouge et Bleu.
POSITION DER ABLENKEINHEITEN FÜR ROT UND BLAU	D	- Decken Sie die blaue Linse ab - Drehen Sie die "rote" Ablenkeinheit (wie oben beschriebenen) so, daß die rote Mittellinie parallel zu der grünen verläuft. - Verfahren Sie so auch mit der "blauen" Einstellung.	- Drehen Sie die Ablenkeinheiten für "Rot" und "Blau"
- POSIZIONE DEL GIOGO DI DEVIAZIONE MAGNETICA ROSSO E BLU.	I	- Coprire le lenti blu - Ruotare il giogo di deviazione magnetica Rosso (vedere la procedura descritta in precedenza) in modo che la linea centrale Rossa sia parallela alla linea Verde. - Seguire la medesima procedura per il giogo di deviazione magnetica Blu.	- Ruotare il giogo di deviazione magnetica Rosso e Blu.
- POSICIÓN DEL DESVIADOR ROJO Y AZUL.	E	- Cubra la lente azul - Gire el desviador rojo (véase el proceso anterior) para colocar la línea central horizontal roja paralela a la verde. - Siga el mismo proceso con la azul.	- Gire el desviador rojo y azul.

MAGNETIC CENTERING OF GREEN RED BLUE PICTURE CENTRAGE MAGNETIQUE DES IMAGES VERTE, ROUGE ET BLEUE MAGNETISCHE ZENTRIERUNG DES GRÜNEN, ROTEN UND BLAUEN BILDES	Centering magnets Aimants de réglages Zentrier-magnete Centrare i magneti. Imanes de centrado.	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◑ = 50% 1 - Set all bargraphs of convergence static adjustments to center. 1 - Positionner les bargraphs de réglages de convergence statique à mi-course. 1 - Stellen Sie alle Anzeigebalken der Statischen Konvergenzeinsteller auf Mittelstellung. 1 - Regolare al centro tutte le barre grafiche delle regolazioni di convergenza statica. 1. Fije todos los gráficos de barras de ajuste estáticos de convergencia en el centro.  INSTALLATION MENU : Press "INSTALL" on the RC keys 2 - SERVICE MODE : GEOMETRY : H AMP.	- Center the green grid with the centering magnets. - After adjustments realign H AMP in Service Mode. - Do the same process for Blue and Red. - After the adjustment fix the centering magnets with a "neopren" paste. - Centrer la grille verte avec les aimants de réglages. - Après réglage réaligner H AMP dans le Service mode. - Procéder de même pour le Bleu et le Rouge. - Fixer les anneaux avec une colle de contact ("néoprène"). - Zentrieren Sie das grüne Gitter mit den Zentriermagneten. - Nach diesen Einstellungen stellen Sie die Horizontal-amplitude im Service-Mode ein. - Verfahren Sie so auch mit Blau und Rot. - Nach der Justierung fixieren Sie die Zentriermagnete mit einer "Neopren-Paste" - Centrare la griglia verde utilizzando i magneti di centratura. - Dopo avere effettuato le regolazioni riallineare H AMP nel Service mode. - Seguire la medesima procedura per il giogo magnetico rosso e blu. - Dopo avere effettuato le regolazioni fissare i magneti di centratura con pasta di policloroprene. - Centre la rejilla verde con los imanes de centrado. - Después de realizar los ajustes, alinee de nuevo H AMP en modo servicio. - Lleve a cabo el mismo procedimiento para azul y rojo. - Después del ajuste, fije los imanes de centrado con una pasta de neopreno.

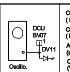
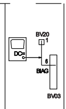
FOCUS	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◑ = 50%		Sharp picture
MAIN FOCUS Red FOCUS Blue FOCUS Green FOCUS Rouge FOCUS Bleu FOCUS Vert FOKUS Rot FOKUS Blau FOKUS Grün	FOCUS Block Optical Focus Bloc optique Optical Focus Optical Focus Optical Focus	GB	**1 - FOCUS Red** - Cover booth the Green and Blue lenses. - Adjust the focus of the red line with the associated focus potentiometer on the Focus Block. **2 - FOCUS Green and Blue** - Repeat the procedure outlined above for both the green and blue lenses. - When adjusting the Blue lens optimise the focus of the left-hand vertical lines. OPTICAL FOCUS: *Access for optical focus adjustment is via the rear of the unit.* - Loosen the lenses small locking wing nut (A) (see figure 1.) - Finely adjust the optical focus, compromising the focus between the centre and corners. - Tighten the small locking wing nut.
		F	**1 - FOCUS Rouge** - Couvrir les tubes Vert et Bleu. - régler la concentration des lignes rouges avec le potentiometre de Focus . FOCUS OPTIQUE :*Réglage effectué par l'arrière de l'appareil.* - Dessérer les ailettes de blocage (A) (voir figure ci-dessous). - Tourner la lentille pour obtenir un réglage fin: compromis entre centre et coin. - Serrer les ailettes de blocage du bloc optique. **2 - FOCUS Vert et Bleu** répéter la totalité de la procédure pour les tubes vert et Bleu. Pour la concentration de l'optique Bleu optimiser le réglage sur une ligne verticale à gauche de l'écran .
		D	**1 - FOKUS Rot** - Decken Sie die grüne und die blaue Linse ab. - Stellen Sie den Fokus der roten Linien mit dem entsprechenden Fokuspotentiometer auf dem Fokusblock ein. OPTISCHER FOKUS :*Die Einstellung des optischen Fokus kann von der Rückseite des Gerätes vorgenommen werden.* - Lösen Sie die kleinen Flügelmutter (A) an der Linse (siehe Abb. 1). - Stellen Sie vorsichtig den optischen Fokus ein: Suchen Sie einen Kompromiß im Fokus der Bildmitte und der Bildecken. - Ziehen Sie die Flügelmuttern wieder an **2 - FOKUS Grün und Blau** Wiederholen Sie die oben beschriebenen Einstellungen für Grün und Blau. Bei der Einstellung des optischen Fokus Blau optimieren Sie die senkrechten Linien am linken Bildrand.
		I	**1 - FUOCO Rosso** - Coprire le lenti verde e blu. - Regolare il fuoco delle linee rosse utilizzando il potenziometro sul blocco della messa a fuoco. FUOCO OTTICO: Regolazione effettuata dal retro dell'apparecchio. - Svitare le alette (A) (Vedere illustrazione 1). - Mettere a punto il fuoco ottico: mantenendoun compromesso tra centro e angolo. - Fissare le alette del blocco ottico. **2 - FUOCO VERDE E blu** - Ripetere l'intera procedura per la messa a fuoco verde e blu. - Per il fuoco ottico blu ottimizzare la linea verticale sinistra.
		E	**1 - FOCO rojo:** - Cubra las lentes verde y azul. - Ajuste el foco de las líneas rojas con el potenciómetro de las mismas en el bloque de foco. FOCO ÓPTICO :*El ajuste del enfoque óptico se realiza desde la parte trasera del aparato.* - Aflojar la lente con la tuerca (A) (ver fig.1) - Ajustar el enfoque óptico, manteniendo un compromiso entre el centro y las esquinas. - Fijar la lente con la tuerca. **2 - FOCUS Green and blue** Repeat the whole procedure for green and blue. For Blue optical focus optimize the vertical left line.

OPTICAL BLOCK :
BLOC OPTIQUE :
OPTISCHE EINHEIT :
BLOCCO OTTICO :
BLOQUE ÓPTICO :



Accessible via the rear of the unit.
Accessible par l'arrière de l'appareil.
Einstellung von der Rückseite des Gerätes
Accessibile dal retro dell'apparecchio.
Accesible desde la parte trasera del aparato.

Fig. 1

DCU DIGITAL CONVERGENCE UNIT		☼ + ◕ = 50% ◑ = 100% ▣ white= 100% blanc= 100%		Control CUT-OFF and DRIVE adjustment (Service Mode p.26) Contrôler les réglages de CUT-OFF et DRIVE (Mode Service p.26) Abgleich der CUT OFF-und DRIVE-Einstellungen (siehe Service Mode S.26) Controllare la regolazione CUT-OFF e DRIVE (Vedere Service Mode a pag.26). Ajustes de CUT-OFF y DRIVE (modo de servicio, pag. 26)
Peak Limiter Blue Peak Limiter	PV03 PV04	- Turn **PVO3** fully clockwise and **PV04** fully anticlockwise. - Slowly turn **PVO4** clockwise until the voltage **V=0.95V**, if this voltage cannot be reach then rotate **PV03** slightly anticlockwise and repeat adjustment of **PV04** until **V=0.95V**. - Now adjust **PV03** so that **V=0.85V** and readjust **PV04** for a limit of **V=0.95 V**. - Tourner à fond **PV03** dans le sens des aiguilles d'une montre. - Tourner à fond **PV04** dans le sens **inverse** des aiguilles d'une montre, puis augmenter doucement jusqu'à **V=0.95V**. (Si on ne peut pas atteindre **0.95V** tourner un peu **PV03** pour que le réglage soit possible). - Régler ensuite **PV03** pour **V=0.85V**. et retoucher **PV04** à la limite de **V=0.85V** - Drehen Sie den Regler **PV03** an den Rechtsanschlag. - Drehen Sie den Regler **PV04** an den Linksanschlag und stellen Sie dann langsam **0,95 V** ein. (Wenn keine **0.95 V** erreicht werden können, drehen Sie bitte leicht an **PV03**, so daß die Einstellung erreicht werden kann). - Dann pegeln Sie mit **PV03 0,85 V** ein und justieren mit **PV04** die Grenze von **0,95 V**. - Girare a fondo in senso orario **PVO3**. - Girare a fondo in senso antiorario **PVO4**, quindi aumentare lentamente fino a **V=0,95V**. (Se non si riesce a raggiungere **0.95V**, girare leggermente **PV03** per consentire la regolazione). - Regolare poi **PVO3** al valore di **V=0.85V** e regolare ancora **PV04** al limite di **V=0,95V**. - Gire **PV03** al máximo en el sentido de las agujas del reloj. - Gire **PV04** al máximo en sentido contrario al de las agujas del reloj y después aumente suavemente hasta que **V=0.95 V**. (Si no puede alcanzar **0.95V**, gire un poco **PV03** para posibilitar el ajuste). - Ajuste a continuación **PV03** para que **V=0.85V** y reajuste **PV04** hasta el límite de **V=0.95 V**		
DC-Compensation level (blue gamma) adjustment Réglage du niveau de compensation (Gamma bleu) Einstellung DC-Kompensations-Pegel (Blau Gamma) Regolazione livello di compensazione DC (gamma blu). Ajuste de nivel de compensación DC (gamma azul)	PS01	☼ + ◕ + ◑ = 50% AV1 : No signal		1- Jumper **BS02** ⟶ **BS01** -Record the voltage value V -Noter la valeur de la tension V -Notieren Sie den Wert Spannung V -Notare il valore della tensione V -Anotar el valor de la tensión V 2.0V < V < 3.0V 2- Jumper **BS02** ⟶ **BS03** -Adjust PS01 to obtain V on Pin BV20. - Régler PS01 pour obtenir V sur BV20 -Stellen Sie an BV20 mit dem Einsteller PS01 die Spannung V ein. -Regolare PS01 per ottenere V su pin BV20. - Ajuste PS01 para obtener V en 1 de BV20.. *After the adjustment leave BS02 to BS03.* *Après réglage laisser BS02 connecté à BS03.* *Nach der Einstellung lassen Sie BS02 auf BS03* *Dopo avere effettuato la regolazione separare BS02 e BS03.* *Después del ajuste, deje BS02 a BS03*
GEOMETRY adjustments	SERVICE MODE	See adjustment in Service Mode (GEOMETRY Menu) Siehe Abgleich im Service Mode (GEOMETRY Menü)		
COLOUR adjustments		See adjustment in Service Mode (VIDEO Menu) Siehe Abgleich im Service Mode (VIDEO Menü)		
CONVERGENCE KONVERGENZ CONVERGENZA CONVERGENCIA	SERVICE MODE	See adjustments in "Service Mode (Convergence Alignment Menu) ". Siehe Abgleich im Service Mode (CONVERGENCE Menü)		

SERVICE MODE (GB)

MODE SERVICE (F)

SERVICE - MODE (D)

SERVICE - MODE (I)

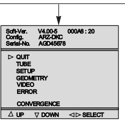
MODO SERVICIO (E)

I - ENTER/EXIT SERVICE MODE - ENTREE/SORTIE DU MODE SERVICE - EIN-UND AUSSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

1 ACCESSING THE SERVICE MODE

TV Control Panel Access

- Switch "Off" the mains supply to the TV .
- Whilst holding depressed the **PR-** and **VOL-** on the projector keyboard, switch "On" the mains supply to the TV.
- Once initialised, the Main Service Menu will appear on the screen of the TV.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Note :

In service mode :
- *The child lock function is re-initialised*
- *The lock function (PIN Number) is ignored.*
- *All Wake-up/Sleep timer settings are cleared.*
- *SCART socket pin 8 switching voltages is ignored.*
- *AV- Link WSS detection , EPG and Teletext functions are disabled.*
- *Automatic standby mode switching functions (no conditions) are disabled.*
- *Brightness, Colour and Contrast are set to factory settings.*
- *Sharpness settings are set to MID position.*
- *Contrast expander is set to low.*
- *Automatic Install mode is disabled.*
- *Format and Zoom are reset to factory defaults.*

2 TEMPORARY EXIT FROM SERVICE MODE

- Press the "Exit" button on the RCU.
- Pressing the "Men" button on the RCU will active the customer menus.

- The Service Menu can be re-entered by pressing the "Blue" button on the RCU.

3 EXITING FROM SERVICE MODE

Remote Control	TV Control Panel	"On/Off" or "Standby" buttons
- Select the "QUIT" line of the "Main Service Menu.		- RCU "Standby" button or switch "Off" mains supply
- Press «<», «OK» or «>» button	- Press «VOL.+»button	

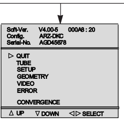
- TV mode.

Values or adjustments not stored before exiting the service mode will not be saved in the NVM

1 ACCES AU MODE SERVICE

Accès avec le clavier du téléviseur

- Arrêter le TV avec la touche **M/A.**
- Tout en appuyant sur les touches **PR -** et **VOL -** , mettre le TV en service à l'aide de la touche **M/A.**
- Maintenir enfoncées les touches **PR -** et **VOL -.**
Le menu suivant apparaît.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Note :

En mode service:
- *Le verrouillage parental est effacé (réinitialisé).*
- *La fonction de verrouillage (Pin number) est ignorée.*
- *La programmation des heures «reveille/matin» est annulée.*
- *Possibilité de passer en mode service avec commutation lente active.*
- *AV- Link , la détection WSS, l'EPG et le Vidéotexte ne sont pas validés.*
- *La fonction de stand-by automatique en cas d'absence de signal d'antenne n'est pas validée.*
- *Les valeurs de réglages usine sont affectées au contraste, à la couleur et à la lumière.*
- *Le contour est appelé à sa valeur moyenne.*
- *L'expansion contraste est au niveau bas.*
- *Le mode d'installation et l'ambiance «Light sensor» ne sont pas valdés.*
- *Zoom et format ignorées.*

2 SORTIE TEMPORAIRE DU MODE SERVICE

- Utiliser la touche Exit de la télécommande.
- Le menu utilisateur peut être accessible via la touche «Menu».

- Pour entrer à nouveau dans le mode service utiliser la touche bleue.

3 SORTIE DEFINITIVE DU MODE SERVICE

télécommande	clavier du téléviseur	Inter M/A ou Stand-by
- Aller au point «QUIT» dans le menu principal du mode service.		- Foncion Stand-by ou «off» par M/A
- Appuyer sur «<», «OK» ou «>»	-Appuyer sur «VOL+»	

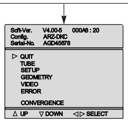
- Mode TV.

Les valeurs ou réglages non mémorisées avant la sortie ne seront pas écrites en NVM.

1 EINSTIEG IN DEN SERVICE MODE

Zugriff über die Tastatur des Fernsehgeräts

- Fernsehgerät über die EIN/AUS - Taste ausschalten.
- Gleichzeitig die Tasten PR- und VOL- drücken und den TV über die EIN/AUS-Taste einschalten.
- Die Tasten PR- und VOL - gedrückt halten.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Anmerkung :

Im SERVICE MODE :
- *wird die Sperrfunktion (PIN-Nummer) ignoriert und die Kindersicherung gelöscht (reinitialisiert).*
- *werden alle Ein- und Ausschaltzeitgeber gelöscht.*
- *wird die SCART - Schaltspannung ignoriert.*
- *werden AV- Link WSS, EPG und Videotext gesperrt*
- *wird die Automatische Abschaltung bei fehlendem Antennensignal gesperrt.*
- *werden Kontrast, Farbe und Helligkeit auf Standardwerte gesetzt.*
- *wird die Bildschärfe auf Mittelstellung gesetzt.*
- *wird der Kontrast-Expander auf "gering.." gesetzt.*
- *wird der Installations-Modus gesperrt.*
- *wird das Standardformat bzw. der Standard-Zoom-Modus gewählt.*

2 VORÜBERGEHENDES VERLASSEN DES SERVICE MODE

- Auf der Fernbedienung EXIT drücken.
- Mit der Taste Menü gelangen Sie zum Übersichts menü.

- Mit der blauen Taste gelangen Sie zum Service-Menü .

3 ENDGÜLTIGES VERLASSEN DES SERVICE MODE

Fernbedienung	TV-Bedienfeld	EIN /Aus - Taste
- Wenn der Zeiger im Hauptmenü des Service-Modus auf BEENDEN steht		- Mit Standby-Funktion oder EIN/AUS - taste ausschalten
- Taste «<», «OK» oder «>»drücken	-Taste «VOL+» drücken	

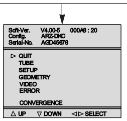
- TV Modus

Werte und Einstellungen, die nicht vor dem Verlassen des Service-Modus gespeichert wurden, werden nicht in den Permanentspeicher übernommen

1 ACCESSO AL SERVICE MODE

tramite i comandi del televisore

- Spegnere il TV mediante il pulsante ON/OFF.
- Premere i tasti **PR-** e **VOL-** accendendo il TV con il pulsante ON/OFF.
- Premere i pulsanti **PR -** e **VOL -.**


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Nota :

Nel service mode:
- *la funzione Blocco (Numero Pin) viene ignorata e la funzione Blocco Bambini è reinizializzata.*
- *Cancella la programmazione sveglia*
- *Il piedino 8 della scart viene ignorato.*
- *I riconoscimenti AV-Link WSS, EPG e televideo vengono disabilitati.*
- *Funzione automatica di standby, nel caso di mancanza del segnale d'antenna viene disabilitata.*
- *Contrasto, colore, luminosità : regolazioni di fabrica.*
- *Nitidezza: media (nominale)*
- *Espansore contrasto troppo basso.*
- *IModo Install disabilitato.*
- *Formato default e zoom.*

2 USCITA TEMPORANEA DAL SERVICE MODE

- Premere Exit sul telecomando.
- Al menu di uso quotidiano si accede attraverso il pulsante Menu.

- É possibile rientrate nel Menu Field Service attraverso il pulsante Blue.

3 USCIRE DAL SERVICE MODE

telecomando	Panello controllo TV	Tasto on/off di
- Andare al punto QUIT nel Modo Field service del Menu principale		- Funzione Stand-by o «off» con il tasto on/off
- Premere «<»,«OK» o «>»	- Premere «VOL.+»	

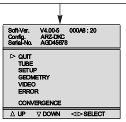
- Modo TV.

Valori e regolazioni non vengono memorizzati prima di uscire dal Modo service e non vengono scritti nell'NVM

1 ACCESO AL MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA:PARADA.
- Pulse los botones **PR -** y **VOL -** y sin soltarlos,pulsar la tecla MARCHA:PARADA.
- Libere los botones **PR -** y **VOL -** .


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Nota :

En modo servicio:
- *Se ignora la función de bloqueo y se inicializa la función "cerradura ninos".*
- *Anula todos las horas programadas*
- *La patilla 8 del SCART es ignorada*
- *La detección WSS AV Link, EPG, y Teletexto son desactivados.*
- *El apagado automático en caso de ausencia de señal de antena es desactivado.*
- *El contraste,color y brillo son puestos a los valores de fábrica.*
- *la nitidez es puesta al punto medio.*
- *La expansión de contrast al nivel bajo*
- *Modo Instalación es desactivado.*
- *Zoom y formato ignorados.*

2 SALIDA TEMPORAL DEL MODO SERVICIO

- Pulse Salir en el mando a distancia
- Con el botón Menu puede acceder al menú de uso cotidiano.

- Puede entrar al Menú Servicio con el botón azul.

3 SALIDA DEL MODO SERVICIO

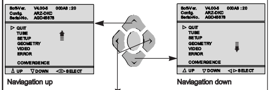
telecomando	Panel de control TV	Tecla on/off de
- Vaya al punto QUIT del menú principal de modo Servicio		- Función Stand-by o desconexión (off) con tecla on/off.
- Pulse el botón «<»,«OK» o «>»	- Pulse el botón«VOL+»	

- Modo TV.

Los valores o ajustes no se guardan antes de salir del modo servicio y no se escriben en el NVM

II - NAVIGATION INSIDE THE SERVICE MODE - DEPLACEMENT DANS LE MODE SERVICE NAVIGATION IM SERVICE MODE - OPZIONI NEL SERVICE MODE - BUSQUEDA EN MODO SERVICIO

1 REMOTE CONTROL - TELECOMMANDE - FERNBEDIENUNG TELECOMANDO - MANDO A DISTANCIA


Soft-Ver. V4.00-5 000A8 :20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
Naviagation up
Naviagation down

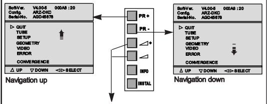
- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

- "Change" value
- Wert "ändern"
- "Cambiare" valore
- "Cambiar" valor

> → VALUE ↗

< → VALUE ↘

2 TV CONTROL PANEL - CLAVIER TV - TASTATUR DES FERNSEHGERÄTS - COMANDI DEL TELEVISORE -


Soft-Ver. V4.00-5 000A8 :20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
PR +
PR -
INFO
INSTAL
Navigation up
Navigation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

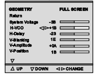
- "Change" value
- Wert "ändern"
- "Cambiare" valore
- "Cambiar" valor

Vol. + → VALUE ↗

Vol. – → VALUE ↘

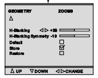
Changing page - Changement de page
Seitenwechsel - Cambiare Pagina - Cambio de página

End of page Fin de page Am Seitenende Fine della pagina Fin de página	Beginning of Page Début de page Am Seitenanfang Inzio della pagina Comienzo de página


GEOMETRY FULL SCREEN
Return
System Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

« ▽ »

Indicates a following page
Signifie qu'une page suit.
Bedeutet, daß eine Seite folgt
Indica una pagina seguente
Indica una página siguiente

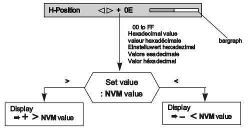

GEOMETRY ZOOM0
△
H-Blanking ◁▷ +3B
H-Blanking Symmetry -19
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

« △ »

Indicates a preceding page
Signifie qu'une page précède.
Bedeutet, daß eine Seite vorangeht
Indica una pagina precedente
Indica una página precedente

- The menu turns the page when the cursor reaches the arrow.
- Amener le curseur sur la ligne repérée par« ▽ » ou « △ » pour passer à la page qui précède ou qui suit.
- Cursor nach « ▽ »,« △ » zum Seitenwechsel
- Il cursor su « ▽ »,« △ » cambia pagina.
- Cursor en « ▽ » ,« △ » cambia las páginas

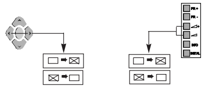
3 DISPLAYING THE VALUE OF THE SETTING - AFFICHAGE DES VALEURS - ANZEIGE DES EINSTELLWERTES VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE - VISUALIZACION DEL VALOR DE AJUSTE


H-Position ◁▷ + 0E
00 to FF
Hexadecimal value
valeur hexadécimale
Einstelluwert hexadezimal
Valore esadecimale
Valor héxadecimal
bargraph
Set value
: NVM value
>
<
Display
➡ + > NVM value
Display
➡ – < NVM value

4 TOGGLE FUNCTIONS - VALIDATION DES FONCTIONS UNSCHALT FUNKTIONEN - FUNZIONI DI COMMUTAZIONE - FUNCION CONMUTACION

To enable a function check (tick) ☒ the box.
Pour valider une fonction cocher ☒ la case correspondante
Zum Implementieren einer Funktion das Kontrollkästchen ☒ aktivieren (ankreuzen)
Per validare una funzione , (vistare) ☒ la casella
Para poner en fucionamiento una función verifique (señale) ☒ la casilla

☒ : Enable function ☐ : Disable function


☐ ➡ ☒
☒ ➡ ☐
☐ ➡ ☒
☒ ➡ ☐
PR +
PR -
INFO
INSTAL

5 STORING VALUES IN MEMORY - MEMORISATION DES VALEURS - SPEICHERN DER WERTE - MEMORIZZARE VALORI - VALORES ALMACENADOS EN LA MEMORIA

After setting, the values are stored in NVM.
Après réglages les valeurs sont mémorisées en NVM.
Nach dem Abgleich müssen die Werte im NVM gespeichert werden.
Dopo la regolazione i valori vengono memorizzati in NVM.
Después del ajuste, los valores son almacenados en NVM

The box ☐ becomes ☒
During alignment, values are temporarily stored in RAM.
En cours d'alignement les valeurs sont mémorisées temporairement en RAM
Während des Abgleichs werden die Werte vorübergehend im RAM gespeichert
Durante l'allineamento i valori vengono memorizzati provvisoriamente nella RAM
Durante el alineamento, los valores son almacenados temporalmente en RAM

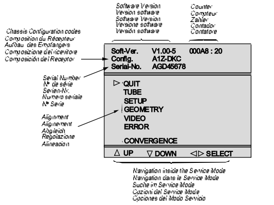
Store ➡ Copies RAM values into NVM
Copie la valeur RAM en NVM
Kopieren der Werte von RAM nach NVM
Copiare i valori RAM in NVM
Copiar valores RAM en NVM

Restore ➡ Copies all values from NVM into RAM.
Copie toutes les valeurs des données NVM en RAM
Kopiert alle NVM-Datenwerte in den RAM
Copiare tutti i valori da NVM nella RAM
Copia todos los valores de NVM a RAM

ROM Default ➡ All the default values of a page in use are stored in RAM.
L'ensemble des valeurs par défaut d'une page courante est chargé en RAM.
Sämtliche Standardwerte der aktuellen Seite werden in das RAM geladen.
Tutti i valori di default di una pagina in uso vengono memorizzati nella RAM
Todos los valores por defecto de la página en curso están almacenados en RAM.

III - LITE-MENU FOR FIELD SERVICE MODE - MENUS DU MODE SERVICE - MENÜS IM SERVICE MODE

1 MAIN MENU - MENU PRINCIPAL - HAUPTMENÜ


Software Version
Version software
Software Version
Versione software
Versión software
Counter
Compteur
Zähler
Contador
Contatore
Chassis Configuration codes
Composition du Récepteur
Aufbau des Empfangers
Composizione del ricevitore
Composición del Receptor
Serial Number
Nº de série
Serien-Nr.
Numero seriale
Nº Serie
Alignment
Alignement
Abgleich
Regolazione
Alineacion
Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Opciones del Modo Servicio

TV CONFIGURATION - CONFIGURATION DU TV - GERÄTEKONFIGURATION - CONFIGURAZIONE DEL TV - CONFIGURACIÓN DEL TV

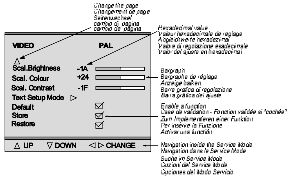
Config. A1Z-DKC

Character 1 : Tube type : «A»= 4/3 , «W» =16/9
Character 2 : Chassis type : «5» = 50Hz, «1»= 100 Hz
Character 3 : Zoom available : «Z»=yes, «-»=not
Character 4 : Ambiant Sensor : «S»= detected, «-»= not
Character 5 : Dolby : «D»=detected, «-»= not
Character 6 : AV Link detected : «K»=IR link detected, «-»= not
Character 7 : Password mode: «C»= Password stored, «-»= not

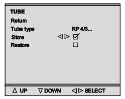
TIME COUNTER - COMPTEUR DE TEMPS - ZÄHLER - CONTATORE - CONTADOR

The counter indicates the number of hours, (0 to 65535) the TV has been operating in hexadecimal notation.
Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.
Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb war. Die Anzeige ist hexadezimal.
Il contatore indica il numero di ore di funzionamento del TV. Puo' contare da 0 a 65535. La visualizzazione è esadecimale.
El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU - SOUS-MENU - UNTERMENÜ


Change the page
Changement de page
Seitenwechsel
cambio di pagina
cambio de pagina
Hexadecimal value
Valeur hexadecimale de reglage
Abgleichwerte hexadezimal
Valore di regolazione esadecimale
Valor del ajuste en hexadecimal
VIDEO PAL
△
Scal.Brightness -1A
Scal. Colour +24
Scal. Contrast -1F
Text Setup Mode ▷
Default ☑
Store ☑
Restore ☑
△ UP ▽ DOWN ◁▷ CHANGE
Bargraph
Bargraphe de réglage
Anzeige balken
Barre grafica di regolazione
Barra gráfica del ajuste
Enable a function
Case de validation - Fonction validée si "cochée"
Zum Implementieren einer Funktion
Per inserire la Funzione
Activar una función
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Opciones del Modo Servicio

ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION



TUBE
Return
Tube type RP 4/3...
Store ◁ ▷ ☑
Restore ☐
△ UP ▽ DOWN ◁ ▷ SELECT

TUBE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on projectors front panel.

Tube type

After replacing the NVM, the correct tube type number must be entered . Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list.

Definit le tube exact après changement de NVM. Les nouvelles valeurs de tubes (avec video et géometrie) sont actives de suite. Les paramètres de vidéo et de géométrie sont chargés en NVM lorsque STORE est sélectionné. Voir liste ci-dessous.

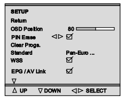
Nach Tausch des NVM den Bildröhrentyp (6 Ziffern) auswählen. Die neuen Geometrie- und Video-Defaultwerte werden sofort aktiv. Variable Geometrie- und Videowerte werden durch Speichern mit "STORE" ins NVM geschrieben. Bildrohraufllstung : siehe unten.

Scegliere il tubo appropriato dopo aver sostituito la NVM; i 6 caratteri che indicano il nuovo tipo di tubo, richiamano i valori video e geometria di default. I parametri per video e geometria vengono caricati nella NVM

Definir el tubo correcto después de haber cambiado el NVM. 6 caracteres.Los nuevos valores de tipo de tubo (con el vídeo y la geometría por defecto) se activan inmediatamente. Los parámetros variables de geometría y vídeo se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

List :
4/3; 16/9.
- Tube type RP 4/3 : RP C19 4/3
- Tube type RP 16/9 : RP C19 16/9

⟶ After setting ⟶ Store (+) ☑



SETUP
Return
OSD Position 80
PIN Erase ◁ ▷ ☑
Clear Progs.
Standard Pan-Euro ...
WSS ☑
EPG / AV Link ☑
▽
△ UP ▽ DOWN ◁ ▷ SELECT

SETUP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

OSD Position
Adjusts the position of all Megatext OSD..

PIN Erase Erases all PINs.
☑ PIN active ☐ No PIN active
Selection : Long press:
Press </>/OK: RCU or Vol. +/- :proj.front panel
Automatically stored.

Clear Prog.

Clears all programms stored in memory and resets all Picture and Sound settings to the factory defaults. The AUTO INSTALL (out of factory) mode can be initialised by a long press (>2.5s.) of the selection button.

Efface tous les programmes mémorisés. valeurs SON et IMAGES: valeurs usines. Pour sortir des valeurs usine : Selection : Long press (2,5s) sur la touche de sélection </>.

Löscht alle Programmplätze und setzt alle Bild- und Toneinstellungen auf Fabrikwerte zurück. Der AUTO-INSTALL-Modus kann durch einen langen Knopfdruck (>2,5s) initialisiert werden.

Clear Prog.
Cancella tutti i programmi in memoria e regola i Valori analogici SUONO IMMAGINE: ai valli di fabbrica. Riportare il TV al modo Selezione: pressione prolungata: 2,5 sec.

Programa de borrado.
Borra todos los programas almacenados en la memoria.Valores analógicos de IMAGEN y SONIDO: valores de fábrica.Regreso a la TV para "salir del modo fábrica".Selección: Presión larga igual a 2,5 s.

Standard "Pan-Euro" or "I".
BG PAL SECAM,L SECAM (France),
DKK' SECAM,NTSC M,I PAL (UK/IRELAND)

WSS

Automatic detection of DOLBY surround sound and 16/9 format pictures via Teletext line number 23 is valid on all programmes.

Détection automatique du son surround DOLBY et du format 16/9 via la ligne 23 du Télétexte. Valide pour tous programmes.

WSS (nur bei 16:9 oder Dolby)
Auswertung der Zeile 23 zur automatischen Format-und Dolbyumschaltung.

Identificazione "auto-surround" e "format" via televideo alla riga 23.La selezione di WSS Processing vale per tutti i programmi.

Detección "auto-surround" y "format" a través de la línea 23 de Teletext. La selección del procesamiento WSS es válida para todos los programas.

☑ Detection enable ☐ Detection disable

EPG / AV Link

Enables or disables the option to decode and display EPG program data.

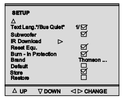
Validation ou inhibition du décodage/affichage des données du programme EPG.

Zulassen oder Nichtzulassen von EPG.

Abilita o disabilita l'opzione di decodifica e visualizzazione dati programmi EPG.

Valida o inhibe la opción de descodificación y visualización de datos del programa EPG.

☑ Available ☐ Not available



SETUP
△
Text Lang.*/Bus Quiet* 1/☑
Subwoofer ☑
IR Download ▷
Reset Equ. ☑
Burn - In Protection ☑
Brand Thomson ...
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁ ▷ CHANGE

*according to model

SETUP

Text. Lang. Teletext language :

0	1	2	3
English	Polish	English(US)	English
German	German	German	German
Swedish	Swedish	Swedish	Swedish
Italian	Italian	Italian	Italian
French	French	French	French
Portug.	Serbocroat	Portug.	Portug.
Czech/Slov.	Czech/Slov.	Czech/Slov.	Turkish.
-	Rumanian	English(UK).	-

Bus Quiet

In Bus Quiet, the NVM can be read, modified and reprogrammed by means of a NVM Programmer. To access "Bus Quiet" : Long press ">". The TV should remain in "Bus Quiet" mode until either Exit, Left, Right, Up,Down or Standby keys on the RCU or local keyboard are pressed; at which point the TV should carry out a warmstart in order to prevent differences between the NVM and RAM contents. After returning from Bus Quiet, the software checks the NVM content. If it is not valid, the software perform a new default writing of the NVM content.

En mode Bus Quiet la NVM peut être lue, modifiée et reprogrammée. Accès au mode Bus Quiet : Longue pression ">". Utiliser l'une des touches Exit, Gauche, Droite Haut, Bas, standby ou une des touches du clavier pour sortir le téléviseur du mode bus quiet. A partir de ce point de sortie le démarrage du téléviseur s'effectue à chaud pour éviter toute différence des contenus RAM et NVM. En sortie de mode bus quiet, le logiciel contrôle le contenu de la NVM. S'il n'est pas correct le logiciel exécute une nouvelle écriture par défaut de celle-ci.

Im "Bus Quiet"-Modus kann der Inhalt des NVM mittels eines externen NVM-Programmiergerätes ausgelesen, geändert oder neu programmiert werden. "Bus Quiet" wird einem längeren Druck auf ">" aktiviert. Das Gerät bleibt solange im "Bus Quiet"-Mode, bis durch Druck auf die EXIT-, LINKS-, RECHTS-, HOCH-, RUNTER- oder STANDBY-Taste (am Gerät oder auf der Fernbedienung) ein Warmstart des Gerätes veranlaßt wird, um unterschiedliche Daten in RAM und NVM zu vermeiden. Es folgt ein Software-Check des NVM-Inhaltes. Sollte dieser nicht gültig sein, wird der Inhalt mit Default-Werten überschrieben.

In Modo Bus Quiet, la memoria NVM può essere letta, modificata o riprogrammata. Per accedere al modo Bus Quiet premere a lungo il tasto ">". Il TV dovrebbe rimanere in modo Bus Quiet fino a che vengono premuti i tasti Exit, o Destro Sinistro, Su o Giù o Standby dal telecomando o dalla tastiera locale; a questo punto il TV dovrebbe ripartire per evitare interferenze tra i contenuti della memoria NVM e della RAM. All'uscita dal modo Bus Quiet, il software controlla il contenuto della memoria NVM. Se tale contenuto non è valido, il software provvede a una nuova programmazione della NVM con l'inserimento dei dati di default.

En bus quieto, la NVM puede ser leída, modificada y reprogramada. Acceso a bus quieto : Larga presión en ">" El TV permanecerá en bus quieto hasta que se pulse cualquiera de las teclas siguientes: Exit, "<", "Y", "/", ">"o Standby del telemando o del teclado. En este momento el TV arrancará para evitar cualquier diferencia entre los contenidos de la RAM y NVM. Al salir del modo bus quieto, el software comprueba el contenido de la NVM. Si no coincide, el software ejecuta la escritura de los datos en la NVM.

☑ Bus Quiet enable ☐ Bus Quiet disable

SETUP

Subwoofer

Enable the subwoofer on equiped set.

Validation du Subwoofer sur les appareils équipés .

Einschalten des Subwoofers (wenn vorhanden).

Abilita il subwoofer negli apparecchi eqipaggiati.

Validaciónde que existe el subwoofer.

☑ Subwoofer enable ☐ Subwoofer disable

IR Download

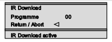
Download screen for receiving mapping via IR data.

Ecran de chargement pour réception "mapping" via IR data

Laden des Programmschemas per AV-Link

Trasferimento IR
Trasferire schermo per ricezione mappatura via dati IR

Descarga de IR
Pantalla de descarga para recibir el mapeado a través de los datos IR.



IR Download
Programme 00
Return / Abort ◁
IR Download active

"Programme 00" : function is active or finished. Return / Abort : To exit/Abort the menu press "left" arrow key or Volume - key of keyboard. All other IR commands have no response.

"Programme 00" : Fonction active ou finie. Return / Abort : Pour sortir du menu appuyer sur la touche "gauche" ou "Volume -" du clavier. Les autres commandes IR sont sans réponse;

"Programme00":Funktion ist aktiv oder beendet "Return/Abort": Beenden oder Abbruch der Funktion durch Drücken der linken Pfeiltaste oder "Lautstärke-" am Gerät.Alle anderen Tasten haben keine Funktion.

Programma 00: la funzione è attiva o finita. Return/Abort: per uscire dal menu, premere il tasto "sinistra" del telecomando o il tasto Volume- della tastiera. Tutti gli altri comandi IR sono senza risposta.

"Programme00" : función activa o terminada. "Return / Abort" : para salir / abortar, pulsar la tecla "flechaizquierda" o la tecla "volumen -" del teclado. Todos los demás comandos IR son inoperantes

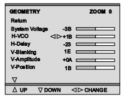
Reset Equ.	Reset Equaliser Not available Non disponible

Burn-in Protection

- To decrease the risk of marking the screen when displaying static images, the picture is continually displaced over a period of 2 hours by approximately 5 mm.
- Diminue le risque de marquage de l'écran sur image fixe par un déplacement de celle-ci de 5 mm toutes les 2h.et changement de programme.
- Um ein Einbrennen unbewegter Bilder in die Leuchtschicht zu verhindern, wird das Bild nach jedem Programmwechsel und zeitgesteuert alle 2 Stunden um etwa 5mm verschoben.
- Non visualizzare un'immagine fissa per più di due ore, nel caso, cambiare programma.
- Protege la pantalla contra marcas con imagen fija desplazándola 5 mm cada 2 horas y cambiando el programa

☑ Available ☐ Not available

Brand*
Set the "Brand": Thomson, Telefunken, Other
Factory adjusted
Reserve au reglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas
Press </>: remote control; Vol. +/- : TV keyb.



GEOMETRY ZOOM 0
Return
System Voltage -3B
H-VCO ◁ ▷ +1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁ ▷ CHANGE

Test the pattern used : 4/3 with geometric circle. Adjust separate for 4/3 and 16/9 format. See annexed . Colour standard or RGB is autodetected and displayed opposite the displayed opposite the menu title.

GEOMETRY

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

System Voltage
Adjustment of the main system voltage is only possible via the local keyboard Vol +/- .
- Adjust Usys = 134V
(Adjustments Usys)

H-VCO Horizontal - VCO Oscilator.

Adjust the value of H-VCO until the speed of the unsynchronised picture becomes stable. (I.e minimum roll).

Agir sur H-VCO pour obtenir une image la plus proche de la synchronisation

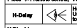
H_VCO auf Schwebung abgleichen.

Regolare l'H_VCO finché l'immagine non sincronizzata non avrà raggiunto la velocità minima.

Ajuste H_VCO hasta que la imagen no sincronizada alcance su velocidad más baja.

default value = 0FH
Press </>: remote control; Vol. +/- : RP keyb.

H-Delay



Horizontal delay
Use "+" and "-"
to adapt the image

V-Blanking

1-Adjust V-Amp. for a 107% over scanned picture.
2-Reduce V-Blanking for visible lines top and bottom of screen.
3-Increase step by step V-Blank. until at the bottom and the cut- off lines on the top of the screen disappear.
4- Increase one more step
5-Next adjust V-Amp. and V-Position

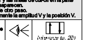
1-V-amp. amplitude verticale suffisante (>7% overscan)
2-Réduire V-blanking:visible en haut et bas.
3-Agir étape par étape jusqu'à disparition du blanking en bas d'image et des lignes de cut-off en haut d'écran
4-Augmenter d'une valeur.
5-Faire un réglage fin de V-amp. et V-position

1- Voreinstellung der V-amp auf: >7% Überschreibung.
2- Reduzieren Sie V-Blanking soweit bis die ersten geschriebenen Zeilen am oberen Bildrand sichtbar werden.
3- Erhöhen Sie V-Blanking Schritt für Schritt bis die Cut-Off Meßzeilen gerade am oberen Bildrand verschwinden.
4- Erhöhen Sie V-Blanking um eine Stufe.
5- Feineinstellung von V-Amp und V-Position.

1- Ampiezza verticale: grande a sufficiensa (7% di sovrascanzioni)
2- Riduzze il V-blanking per visualizzare le linee : alto e in basso dello schermo.
3- Aumentare passo/passo: finchè le linee di cut off nella parte alta dello schermo scompaiono.
4- Aumentare ancora di un passo
5- Regolare con precisione l'ampiezza e la posizione verticali.

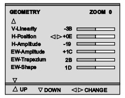
1- Amplitud V: suficientemente grande (7% de sobreexploración)
2- Reducir el borrado V: visible en las partes superior e inferior.
3- Aumentar el paso a paso: el borrado en la parte inferior y las líneas de cut-off en la parte superior desaparecen.
4- Aumentar de otro paso.
5- Ajustar finamente la amplitud V y la posición V.

V-Amplitude



(reference (p. 20))

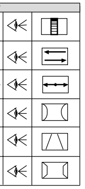
V-Position Vertical Power Stage zero adjust.
(Adjustments : refer to RPC19 Service Manual Part : 350 845 90)

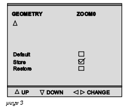


GEOMETRY ZOOM 0
△
V-Linearity -3B
H-Position ◁ ▷ +0E
H-Amplitude -19
EW-Amplitude +1C
EW-Trapezium 2B
EW-Shape 1D
▽
△ UP ▽ DOWN ◁ ▷ CHANGE

GEOMETRY

V-Linearity *
H-Position
H-Amplitude
EW - Amplitude
EW - Trapezium
EW -Shape





GEOMETRY ZOOM0
△
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁ ▷ CHANGE

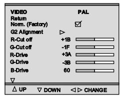
page 3

⟶ After setting ⟶ Store (+) ☑

Default Values :

- U Sys. : 98	- V-Linearity * : 60
- H-VCO : 80	- H-Position : 78
- H-Delay : 80	- H-Amplitude : 78
- V-Blanking : A0	- EW-Amplitude : 8C
- V-Amplitude : 4E	- EW-Trapezium : 78
- V-Position : 80	- EW-Shape : 00

* - V-Linearity : 60= Fix value. Not to change.



VIDEO PAL
Return
Norm. (Factory) ☑
G2 Alignment ▷
R-Cut off +1B
G-Cut off -1F
R-Drive +3A
G-Drive -3B
B-Drive 60
▽
△ UP ▽ DOWN ◁ ▷ CHANGE

VIDEO PAL

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

Norm. (Factory)

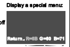
Recalls the factory settings for colour, brightness, contrast and sharpness and sets contrast expand to "low".

☑ Factory settings recalled
☐ User settings kept.

G2 Alignment

Display a special menu:

Initially set R_Cut-off and G_Cut-off to 80H .



RGB cut-off counters

Adjust the values with the 3 potentiometer on CRT boards to: R=28 G=28 B=28

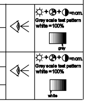
To return video submenu:
Press </>/OK: remote control; Vol. +/- :RP keyb.
Select "Restore" to restore the cut-off values.

R-Cut off*
G-Cut off*

☼+◑+◐=nom.
Grey scale test pattern white =100%

R - Drive
G - Drive
B - Drive

☼+◑+◐=nom.
Grey scale test pattern white =100%



Note :
* adjust separate for PAL/NTSC/SECAM and RGB/AV

⟶ After setting ⟶ Store (+) ☑

Default Values :

- R-Cut off : 70	- B-Drive : 64
- G-Cut off : B8	- Scale bright. : 90
- R-Drive : 54	- Scale colour : 94
- G-Drive : 94	- Scale contrast : BC

IMPORTANT

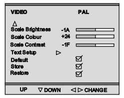
Factory setting values are indicated on a label inside the optical block housing. These should be used in preference to the default values.

Les valeurs de réglages usines sont indiquées sur une étiquette située à l'intérieur du caisson bloc-optique.Elles sont à utiliser de préférences aux valeurs par défaut

Die Fabrik-Einstellwerte sind auf einem Aufkleber im Inneren des Gehäuses des Optischen Blocks angebracht. Diese sollten den Defaultwerten vorgezogen werden.

I valori di regolazione di fabbrica vengono indicati su una etichetta collocata all'interno del contenitore del blocco ottico. Questi valori devono essere utilizzati di preferenza ai valori di default.

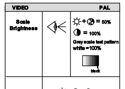
Los valores de los ajustes de fábrica se indican en una etiqueta situada en el interior de la cubierta del bloque óptico. Son de utilización preferente a los valores por defecto



VIDEO PAL
△
Scale Brightness -1A
Scale Colour +24
Scale Contrast -1F
Text Setup ▷
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁ ▷ CHANGE

VIDEO PAL

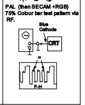
Scale Brightness



☼+◑ = 50%
◐ = 100%
Grey scale test pattern white =100%

Scale* Colour

☼+◑+◐=nom.
PAL (then SECAM +RGB)
75% Colour bar test pattern via RF.

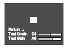


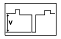
Scale Contrast
Keep factory settings or default value

Text Set-up Mode

☼+◑+◐=nom.
Set Text Contr. to max. !
Adjust Text Gain to get a light output of just V=60Vpp
CRT B. Pin 8

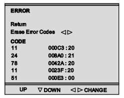
Fine-adjus with Text Contr.
(250 nits : 46"; 200 nits : 52")





CRT B. Pin 8

⟶ After setting ⟶ Store (+) ☑



ERROR
Return
Erase Error Codes ◁ ▷
CODE
11 000C3 : 20
24 008A0 : 21
78 0042A : 20
11 0023F : 20
51 000E3 : 00
UP ▽ DOWN ◁ ▷ CHANGE

ERROR CODE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

Erase Error Codes Clears all error codes stored in the NVM. Press and hold </>/OK buttons on the RCU or the VOL+/VOL- keys on the projector for more than 5s. (long press).

CODE LED Error Codes

The last five error codes are stored and displayed as they occured in real time, the most recent error code is displayed on the top line. A repeated top line error code has its real time count updated. There are 27 different error codes, which are signalled by the TV's Standby LED, ranging in value from 11 to 49 hex. The error code is displayed as two separate digits separated by a suitable pause, this is repeated until the either the TV fixes the fault or the TV is repaired.
For example Error-code : 23 will be displayed thus :
2 flashes and a short pause
3 flashes and a long pause
....
List of Errors Codes : see table

Mémorise les cinq derniers codes erreurs et affiche en haut d'écran les plus récents.
27 codes erreurs différents sont signalés par deux digits selon une séquence spécifique
Exemple :
Code erreur : 23 affiché
2 flashes, courte pause
3 flashes : longue pause
....
Voir ci-contre la liste des codes erreurs

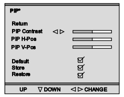
Zeigt die letzen 5 Fehlercodes mit der Laufzeit an. Der zuletzt aufgetretene Fehler steht an erster Stelle. Sollte ein Fehler wiederholt auftreten wird nur die Laufzeit aktualisiert.
Die Fehlercodes können im Menü Error Code angezeigt werden oder über die Kontroll LED angezeigt werden;

Beispiel für die Anzeige über die Kontroll LED:

Fehlercode 23 :
Zweimaliges Blinken der LED, kurze Pause.
Dreimaliges Blinken der LED, lange Pause.
Auflistung der Fehlercodes : siehe Liste

Memorizza gli ultimi cinque codici d'errore, tra cui il più recente viene visualizzato sulla prima riga, aggiornando la durata di esecuzione del codifice stesso.
Dal Led del TV vengono segnalati 27 codici d'errore diversi, numerati da 11 a 44. Il codice d'errore è indicato da due cifre separate da un intervallo di tempo, che verrà ripetuto fino a quando il TV non sarà stato riparato o resettato.
Ad esempio:
Il codice d'errore 23 visualizzerà:
2 segnali luminosi con pausa breve
una pausa lunga
3 segnali luminosi con pausa breve
Per la lista dei codici d'errore, consultare la tabella.

Almacene los últimos cinco códigos de error cuando cada uno ocurre (gracias al contador de tiempo de ejecución). El error más reciente se visualiza en la parte superior. Una repetición del código de error en la parte superior de la lista solamente actualiza el tiempo de ejecución. El indicador TV LED indica 27 códigos de error diferentes: de 11 a 44. El código de error se señala en forma de dos dígitos separados con una pausa apropiada entre los dos y se repetirá hasta que repare el TV o él se repara a sí mismo.
Por ejemplo,
Se va visualizar el código de error 23:
2 parpadeos, una pausa corta;
3 parpadeos, una pausa larga.
Para la Lista de códigos de error, consulte la tabla.



PIP*
Return
PIP Contrast ◁ ▷
PIP H-Pos
PIP V-Pos
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁ ▷ CHANGE

* only PIP models

PIP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

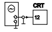
Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

PIP Contrast

☼+◑+◐ = 50%
Video Pattern on AV1 (W=100%)



Y PIP picture = Y main picture

PIP H-Pos - PIP V-Pos

Factory adjustments.These adjustments are optimized by software. Used only if necessary.

Réglages usines. Ces réglages sont optimisés par le software. Ils ne sont à utiliser que si nécessaire.

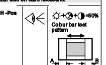
Fabrikeinstellungen. Der Abgleich wurde per Software optimiert. Nur wenn notwendig nachgleichen.

Reggolazioni di fabbrica. Tali regolazioni vengono ottimizzati dal software. Da utilizzare e solo se necessario

Ajustes de fábrica. Estos ajustes están optimizados por software. Utilizar sólo en caso necesario.

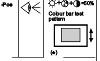
PIP H -Pos

☼+◑+◐=50%
Colour bar test pattern



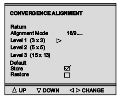
PIP V -Pos

☼+◑+◐=50%
Colour bar test pattern



(*) Center PIP image in the frame
Centrer l'image PIP
PIP -bild im fenster testbilds
Centrare l'immagine PIP sullo schermo
Centre la imagen PIP en el marco

⟶ After setting ⟶ Store (+) ☑



CONVERGENCE ALIGNMENT
Return
Alignment Mode 16/9....
Level 1 (3 x 3) ▷
Level 2 (5 x 5)
Level 3 (15 x 13)
Default
Store ☑
Restore ☐
△ UP ▽ DOWN ◁ ▷ CHANGE

CONVERGENCE ALIGNMENT

· Please refer to RPC19 100Hz 4/3 Service Manual Part N° 350 845 90 p.29-35

· Se référer à la documentation technique de base RPC19 100Hz 4/3 code : 350 845 90. p.29-35

· Bitte schlagen Sie im RPC19 100 Hz 4/3 Service Manual 350 845 90 nach S. 29-35

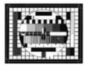
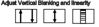
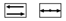
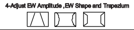
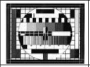
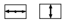
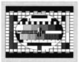
· Consultare la documentazione tecnica del telaio RPC19 100 Hz 4/3. codice: 350 845 90. p.29-35.

· Referirse a la documentación básica del RPC19 100 Hz 4/3. código : 350 845 90 p. 29-35

GEOMETRY MODE ALIGNMENT

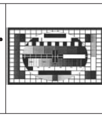
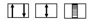
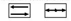
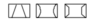
4/3 picture tube

Signal : 4/3 test pattern

4 / 3 standard mode zoom 0		Overscan V=107% , H=107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity  3- Adjust Horizontal Position and Horizontal Amplitude  4-Adjust EW Amplitude ,EW Shape and Trapezium 
<4/3> zoom 1		Overscan V=120% , H=120% 
16 / 9 standard mode		Adjust the vertical height until V = 80%

16/9 picture tube

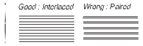
Signal : 4/3 test pattern

16 / 9 standard mode zoom 0		100Hz Version : overscan V=107%, H =107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity  3- Adjust Horizontal Position and Horizontal Amplitude  4-Adjust EW Amplitude ,EW Shape and Trapezium 

Note : GEOMETRY : V-Amplitude

Vertical Interlace - Entrelacement Vertical - Vertikal Interlace Interlaccio Verticale - Entrelazado vertical

- Check the vertical interlace*.
- Contrôler l'entrelacement vertical*.
- Überprüfen Sie das vertikale Interlacing ("Verschachtelung") der Zeilen*.
- Controllare l'interlaccio verticale*.
- Compruebe El entralazado vertical*.



If the interlace is poor, adjust the **VAMP.** by 1/2 steps (+ or -) to achieve the best interlace.

Si l'entrelacement n'est pas correct agir sur **V AMP** de une ou deux valeurs pour obtenir un entrelacement correct.

Bei einer Paarigkeit der Zeilen verstellen Sie **V AMP** um 1 oder 2 Stufen (+ oder -)

Si el entrelazado no es bueno, mueva **VAMP** en 1 o 2 pasos (+ o -) para conseguir la mejor.

Se l'interlaccio non e' idoneo, correggere **VAMP** di 1 o 2 fasi (+/-) per ottenere l'interlaccio migliore.

* To check in 4:3 and in 16:9 - Contrôler en 4:3 et 16:9 - Kontrollieren Sie im 4:3 und im 16:9 Format .- Controllare nel formato 4:3 e 16:9. - Revisar en 4:3 y 16:9

ERROR CODES

GB

11 1st Audio_MSP doesn't answer
12 2nd Audio-MSP doesn't answer
13 Audio-DSP doesn't answer
14 Video IC STV2161/2 doesn't answer
15 Chroma IC 2151/9143 doesn't answer
16 Upconverter DMU0 doesn't answer
17 Audio (or Dolby) module not detected
18 SCART IC TEA6415C doesn't answer
19 Tuner CTT5000 doesn't answer
21 I2C Bus1 data line held low
22 I2C Bus2 data line held low
23 I2C Bus1 clock line held low
24 I2C Bus2 clock line held low
25 Switched 5V not available
26 Tube doesn't get warm in time
27 Deflection detects >3 times protection (problem detected on "breathing" line)
29 DRAM memory of Megatext defect
31 RAM is full
32 A software-timer has been requested, but is not available yet
33 The PSI chip (STV2165) doesn't answer
34 The NVM (X24C32) chip doesnt answer
35 13V not available
36 Wrong addr. NVRAM passed to the bus-handler
37 Unexpected level on NMI (interrupt) line found (possible cause : tube flashover)
38 M3LBus for Megatext is blocked
39 Megatext (SDA5273) doesn't answer
41 Bus1 Data Line not recoverable
42 bus2 Data Line not recoverable
43 MCU (Motion Mastering Up-Converter) doesn't answer
44 Convergence IC (STV2040) doesn't answer
45 Defect "Video Module" is detected
46 "Default" NVRAM of DCU doesn't answer
47 Test Pattern chip of DCU defect
48 Test Pattern NVRAM convergence chip defect
49 Convergence module doesn't answer anymore
51 PIP Module doesn't answer.
52 The Teletext module is not conform .

F

11 Processeur Audio MSP ne répond plus
12 Deuxième MSP ne répond plus (Dolby)
13 Audio-DSP ne répond plus (produit Dolby)
14 Video-IC STV2161 ou 2162 ne répond plus
15 Chroma-IC STV2151 ou TDA9143 ne répond plus
16 Convertisseur de frequence d'image digital DMU0 (intelligent Mastering) ne répond plus
17 Module son (ou Dolby) n'est pas détecté
18 Commutateur SCART TEA6415C ne répond plus
19 Tuner CTT5000 ne répond plus
21 I2C-bus 1 data bloqué au niveau bas
22 I2C-bus 2 data bloqué au niveau bas
23 I2C-bus 1 clock bloqué au niveau bas
24 I2C-bus 2 clock bloqué au niveau bas
25 Le "5V commuté" n'est pas disponible
26 Tube ne chauffe pas a temps
27 Protection base de temps active plus de trois fois (problème détecté sur la ligne "breathing")
29 Mémoire (DRAM) du Megatext est en panne
31 Plus de place en RAM
32 Requète logiciel-timer demandée mais pas encore disponible
33 STV 2165 (PSI 100Hz) ne répond plus
34 NVM (mémoire) X24C32 ne répond plus
35 +13V n'est pas disponible
36 Adresse NVRAM inconnue
37 Problème détecté sur la ligne "interrupt" pendant le démarrage ou le fonctionnement du TV. Possibilité: "arking"?
38 Bus M3L pour Megatext est bloqué
39 Megatext (SDA5273) ne répond plus
41 I2C-bus 1 data reste bloqué
42 I2C-bus 2 data reste bloqué
43 MCU (convertisseur de frequence d'image digital: Motion Mastering) ne répond plus
44 Le CI Convergence (STV2040) ne répond plus
45 "Vidéo Module" erroné détecté
46 La NVRAM "Default" de la platine de convergence ne répond plus
47 Test Pattern du CI de Convergence erroné
48 Test Pattern des NVRAM de Convergence erroné
49 La platine de Convergence ne répond plus.
51 Le module PIP ne répond plus.
52 Le Module Text (DVT) n'est pas le bon.

D

11 Audio MSP Prozessor antwortet nicht.
12 Zweiter Audio MSP Prozessor antwortet nicht.(Dolby)
13 Audio DSP Prozessor antwortet nicht. (Dolby)
14 IC STV2161/62 antwortet nicht
15 IC STV2151 / TDA9143 antwortet nicht
16 DMU0 Upconverter (Videomodul) antwortet nicht
17 Audio- oder Dolby-Modul nicht erkannt
18 TEA6415C antwortet nicht (SCART-Schalter)
19 Tuner CTT5000 antwortet nicht
21 I2C Bus1 data line ist auf low
22 I2C Bus2 data line ist auf low
23 I2C Bus1 clock line ist auf low
24 I2C Bus2 clock line ist auf low
25 Geschaltete 5V nicht vorhanden
26 Röhre wird nicht rechtzeitig warm
27 Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29 DRAM des Megatext defekt
31 RAM antwortet nicht
32 Ein software-timer wurde angefordert, ist aber noch nicht bereit
33 STV 2165 (PSI 100Hz) antwortet nicht
34 NVM Chip antwortet nicht (X24C32)
35 +13V nicht vorhanden
36 NVM adresse nicht gefunden
37 Unerwarteter Zustand an NMI (interrupt) line gefunden. (Mögliche Ursache = Röhren-Überschlag")
38 M3L Bus des Megatext blockiert
39 Megatext (SDA 5273) antwortet nicht
41 Bus1 (data line) nicht möglich zu reaktivieren
42 Bus2 (data line) nicht möglich zu reaktivieren
43 MCU (Motion Mastering Up-Converter) antwortet nicht
44 Konvergenz IC (STV2040) antwortet
45 falsches Videomodul (falscher MCU)
46 NVRAM für Konvergenz antwortet nicht
47 Bildmuster im Konvergenz-IC ist defekt
48 Bildmuster aus dem NVRAM ist defekt
49 Bildrohrtyp "R" ist eigestellt, aber kein Konvergenz-IC gefunden
51 PIP antwortet nicht
52 Falsches Videotextmodul.

I

11 Il primo IC Audio MSP non risponde
12 Il secondo IC Audio MSP non risponde
13 L'integrato Audio DSP non risponde
14 L' IC 2161/2 non risponde
15 L'IC 2151/9143 non risponde
16 Il convertitore non risponde
17 Il Modulo Audio non viene identificato
18 Il TEA6415C non risponde
19 Il sintonizzatore non risponde
21 Linea data I2C bus 1 forzata bassa
22 Linea data I2C bus 2 forzata bassa
23 Linea clock I2C bus 1 forzata bassa
24 Linea clock I2C bus 2 forzata bassa
25 La tensione 5V commutati non disponibile
26 Il tubo non raggiunge la corretta temperatura nel tempo stabilito
27 Per 3 volte, la deflessione ha rilevato una protezione (problema riscontrato dalle linee "breathing")
29 Difetto alla DRAM di Megatext
31 La RAM è satura
32 E' stato richiesto un software-timer, ma non é ancora disponibile
33 Il chip PSI non risponde
34 Il chip NVM non risponde
35 13V non disponibile
36 E' stato trasmesso al bus un indirizzo errato della NVRAM
37 Livello imprevisto sulla linea NMI
38 Bus M3L per Megatext bloccato
39 Megatext non risponde
41 Bus 1 (linea dati) non ripristinabile
42 Bus 2 (linea dati) non ripristinabile
43 MCU non risponde
44 Convergenza IC (STV2040) non risponde
45 rivelato Modulo Video difettoso
46 "Default" NVRAM di DCU non risponde
47 Integrato generatore di test DCU difettoso
48 Integrato generatore di test NVRAM difettoso
49 Il modulo convergenza non risponde
51 Il Modulo PIP non viene identificato
52 Il modulo Televideo non è conforme

E

11 Procesador de audio MSP no responde
12 Segundo MSP no responde (Dolby)
13 Audio DSP no responde
14 Cir. integrado de video STV2161 ó 2162 no responde
15 Cir. integrado croma ST2151 ó TDA9143 no responde
16 Convertidor de frecuencia de imagen digital DMU0 (Mastering inteligente) no responde
17 Módulo de sonido (o Dolby) no se detecta
18 Conmutador Scart (TEA6415C) no responde
19 Tuner CTT5000 no responde
21 Data 1 del bus I2C permanece en bajo
22 Data 2 del bus I2C permanece en bajo
23 Clock 1 del bus I2C permanece en bajo
24 Clock 2 del bus I2C permanece en bajo
25 No se dispone de los "5v conmutados"
26 El tubo tarda en calentarse
27 La protección de la deflexión actúa mas de 3 veces (el problema se detecta en la línea de "breathing")
29 La memoria DRAM del Megatext está defectuosa
31 RAM está llena
32 Un timer-software ha sido solicitado, pero no está disponible
33 El chip STV2161 (PSI 100Hz) no responde
34 La memoria no volátil X24C32 no responde
35 No están disponibles los + 13 v.
36 Dirección de la NVRAM incorrecta
37 Problema detectado en la línea "interrupt" durante el arranque o el funcionamiento del TV.Posibilidad de chispazos en muy alta?
38 El bus M3L para el Megatext está bloqueado
39 Megatext (SDA5273) no responde
41 Data 1 del bus I2C permanece boqueado
42 Data 2 del bus I2C permanece bloqueado
43 MCU (convertidor de frecuencia de imagen digital: Motion Mastering) no responde
44 Cir.integrado de covergencia (STV2040) no responde
45 Fallo detectado en el módulo de Video
46 Fallo en NVRAM o DCU no responde
47 Fallo en c.i. de mira o DCU
48 Fallo en c.i. NVRAM de convergencias
49 El módulo de convergencias no responde
51 El módulo PIP no responde
52 El módulo Teletexto no es conforme

GEOMETRIE / CONVERGENCE ADJUSTMENT - GEOMETRIE / REGLAGES DES CONVERGENCES / GEOMETRIE / KONVERGENZ ABGLEICH - GEOMETRIA / REGOLAZIONE CONVERGENZA - GEOMETRIA / AJUSTE DE CONVERGENCIA

ADJUSTMENTS LEVELS

For every point on the screen, each of the three beams has a specific correction possibility in both horizontal and vertical planes. To achieve this, three levels of adjustment are available in the Service Mode. The unit is also equipped with an alignment grid pattern generator incorporated on the convergence circuit board.

Trois niveaux de réglages sont accessibles dans le mode service et permettent à partir d'une mire de quadrillage générée par les circuits de convergence d'apporter une correction horizontale et verticale aux trois faisceaux de couleur.

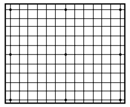
Für jeden Punkt des Bildschirmes und für jeden der drei Katodenstrahlen ist eine spezielle Korrektur sowohl horizontal als auch vertikal, möglich. Im Service-Mode sind drei Ebenen (Level) für den Abgleich der Konvergenz verfügbar.
Das Gittertesbild wird von der Konvergenzschaltung erzeugt.

Per ogni punto dello schermo, ognuno dei tre raggi ha una specifica possibilità di correzione in entrambi i piani orizzontale e verticale. A questo scopo, sono disponibili tre livelli di regolazione in Service Mode. L'unità, inoltre, dispone di un generatore di griglia per l'allineamento, incorporato sulla piastra convergenza.

Tres niveles de ajustes están disponibles en Modo Servicio y permiten a partir de una mira de cuadrícula generada por los circuitos de convergencia, efectuar correcciones especificas en los planos horizontal y vertical para cada uno de los tres haces.

LEVEL 1

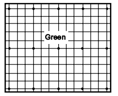
9 points for Green and Blue



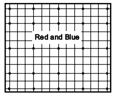
3 X 3 points

Factory adjusts reserved	⚠	MUST NOT BE USED
Réservé aux réglages Usines		NE DOIT PAS ETRE UTILISE
Fabrikeinstellungen		DÜRFEN NICHT VERÄNDERT WERDEN
Regolazioni riservate alla fabrica		NO DEVE ESSERE USATO
Ajustes reservados para fábrica		NO DEBE SER USADO

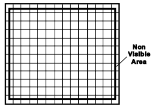
LEVEL 2	LEVEL 3
Large and general corrections *Corrections générales étendues* *Grundeinstellungen* *Correzioni generali estese* *Correcciones generales y extendidas*	*Small local corrections* *Petites corrections locales* *Feineinstellungen* *Piccole correzioni locali* *Pequeñas correcciones locales*
15 or 25 points	195 points for Green, Red , Blue



3 X 5 points

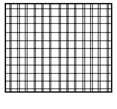


5 X 5 points

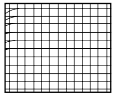


DESCRIPTION OF POSSIBLE CONVERGENCE PROBLEMS

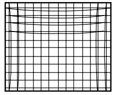
RED AND BLUE PICTURE SHIFTED



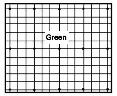
BORDERS OR SMALL AREAS ARE VERY POORLY ALIGNED



SMALL ADJUSTMENTS

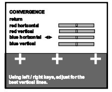


GREEN GEOMETRY IS POORLY ALIGNED



RED AND BLUE PICTURE SHIFTED (GB)

Static Adjustments
- Select "CONVERGENCE" in the Install Menu.
- Correct the shift using the "NAVIGATION" buttons on the RCU



Using left / right keys, adjust for the best vertical lines.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- If the required alignment falls outside the central area of the barograph, set all barographs central and make the adjustments using the magnetic centring rings on the red and blue tubes.
- Firstly, unlock the lightly glued centring rings and then make the necessary adjustments.
- Once aligned the rings must be locked using a lightweight glue or varnish in order that subsequent adjustments can be made.

CENTRAL AREA IS CORRECT. BORDERS OR A SMALL AREAS ARE VERY POORLY ALIGNED

A - GREEN geometry is correct :
- Only adjust the Red and Blue geometry using Level 3 of the convergence menu, **don't touch the green geometry !**

B - GREEN nedds a small adjustment :
- First adjust the Green geometry, then align the Red and Blue geometry using **Level 3** convergence menu.

SMALL ADJUSTMENTS ARE NECESSARY EVERYWHERE.
GREEN GEOMETRY IS CORRECT

The some convergence lines are incorrect, but Green geometry is correct.
- Align Red and Blue geometry using convergence menu **Level 2.**
- Correct the borders if needed using convergence menu Level 3, **don't touch the green geometry !.**

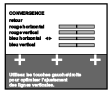
GREEN GEOMETRY IS POORLY ALIGNED

A - BLUE or RED Geometry is correct :
- Enter the convergence menu **Level 2** and press the YELLOW button on the RCU. The red, green and blue grids are displayed but only GREEN geometry can be aligned.
- Adjust the Green geometry to superimpose it on either the Red and/or Blue grid, to ease alignment select the best-converged colour and cover the others lens.

B - BLUE or RED is poorly aligned :
- Enter the Service Mode and select the GEOMETRY menu
- Adjust the alignment of the H/V Amplitudes and E/W Correction settings, if the geometry does not respond to adjustment then:
- Select convergence menu **Level 2** and press the YELLOW button on the RCU to select Green (3X5) alignment routine.
- Check that the centre point of the green grid is exactly central
- Align the grid pattern borders exactly with the screen borders.
- Align the outer edge of the picture if necessary, using convergence menu **Level 3.**
- Align RED convergence using menu **Level 2** and if necessary the borders with **Level 3.**
- Repeat the above process for BLUE alignment.

IMAGE ROUGE ET BLEUE DECALEES (F)

Réglage Statique
- Sélectionner convergence dans le menu d'installation.
- Corriger le décalage avec les touches de navigation.



Utilisez les touches gauche/droite pour optimiser l'ajustement des lignes verticales.

- *Appuyer sur la touche "INSTALL." du clavier du RP pour l'accès au menu d'installation*

- Si le réglage nécessaire est loin de la position centrale des bargraphs il est recommandé de mettre ceux-ci en position centrale et de corriger avec les anneaux de centrage magnétiques des tubes correspondants.
Débloquer préalablement les anneaux fixés par un collage léger.
- refixer ensuite les anneaux avec une colle ou laque pas trop forte pour autoriser une retouche ultérieure.

CENTRE CORRECT.
BORDS OU PETITE SURFACE NON CORRECTE

A - VERT a une géométrie correcte :
- Régler seulement le Rouge et Beu avec **Level 3, ne pas toucher au vert !.**

B - VERT nécessite une légère correction :
- Régler le Vert avec **Level 3** et corrger ensuite le Rouge et le Bleu avec **Level 3.**

PETITES CORRECTIONS NECESSAIRES EN TOUS POINTS DE L'ECRAN.
GEOMETRIE DU VERT CORRECTE

Quelques lignes ont une convergence incorrecte mais le Vert a une géométrie correcte.
- Régler le Rouge et le Bleu avec **Level 2.**
- Corriger les bords si nécessaire avec **Level 3, ne pas toucher au Vert !.**

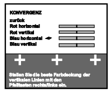
GEOMETRIE DU VERT NON CORRECTE

A - Géométrie du BLEU ou ROUGE correcte :
- Sélectionner **Level 2** et utiliser **la touche jaune** de la télécommande: Les images Rouge, Verte/Beue sont affichées mais la correction s'effectue sur le Vert
- Régler l'image du Vert afin de la superposer à celle du Rouge et/ou de celle du Bleu. Couvir le Bleu ou Rouge . Choisir l'image ayant la meilleure géométrie.

B - BLEU ou ROUGE ont une mauvaise géometrie :
- Selectionner dans le mode service les Réglages de géométrie H/V et Correction Est/Ouest
- Régler la Géométrie.
Si la géométrie ne peut être corrigée:
- Selectionner **Level 2** pour le Vert (3X5).
- Contrôler la position du centre.
- Régler les côtés de la mire exactement par rapport aux bords de l'écran.
- Régler les bords externes de l'image avec **Level 3** si nécessaire.
- Corriger le Rouge avec **Level 2** puis ensuite avec **Level 3** pour les bords si nécessaire.
- Procéder de même pour le Bleu.

ROTES UND BAUES BILD SIND VERSCHOBEN (D)

Statische Einstellung
-Wählen Sie im Installationsmenü "KONVERGENZ"
-Stellen Sie die beste Farbdeckung mit den Pfeil-Tasten ein.



Stellen Sie die beste Farbdeckung der vertikalen Linien mit den Pfeiltasten rechts/links ein.

- *Drücken Sie die Taste "INSTALL" auf dem Nahbedienfeld des Projektors um in das Installations-Menü zu kommen.*

- Sollte der Einstellbereich zu klein sein oder nicht ausreichen, empfehlen wir,alle Anzeigebalken auf Mittelstellung zu bringen und eine Korrektur der Farbdeckung mittels der Zentriermagnete der jeweiligen Röhre vorzunehmen.
- Lösen Sie hierzu zuerst die Verklebung der Ringe und nehmen dann die Einstellungen vor.Danach fixieren Sie die Ringe wieder so mit einem Kleber oder mit Sicherungslack,daß ein späterer Abgleich möglich ist.

DIE BILDMITTE IST IN ORDNUNG, SCHLECHTE DECKUNG AN DEN BILDRÄNDERN ODER IN KLEINEREN FLÄCHEN.

A - GRÜN-Geometrie ist in Ordnung:
- Gleichen Sie nur Rot und Blau im **Level 3** ab, **Grün nicht verstellen !.**

B - GRÜN benötigt geringe Korrekturen:
- Gleichen Sie Grün im **Level 3** nach und korrigieren dann Blau im **Level 3.**

ÜBERALL SIND KLEINE EINSTELLUNGEN NOTWENDIG, DIE GRÜN-GEOMETRIE IST IN ORDNUNG

Einige Linien sind nicht in Konvergenz, die Geometrie von Grün ist aber in Ordnung.
- Gleichen Sie Rot und Blau im **Level 2** ab,
- Gleichen Sie die Bildränder gegebenenfalls im **Level 3** nach, **Grün nicht verstellen !.**

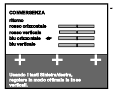
ABGLEICH DER GRÜN-GEOMETRIE

A - Die BLAU-oder ROT-Geometrie ist in Ordnung:
- Gehen Sie in das Konvergenzmenü **Level 2** und drücken Sie die GELBE Taste auf der Fernbedienung. Das rote, grüne und blaue Gitter werden angezeigt. Es läß sich jedoch nur die Geometrie von GRÜN einstellen.
- Bringen Sie das grüne Gitter mit dem roten oder blauen zur Deckung.Zur Vereinfachung des Abgleichs wählen Sie das am besten deckende Gitter und dunkeln die Linse der anderen Farbe ab.

B - BLAU oder ROT sind schlecht abgelichen :
- Gehen Sie im Service Mode in das Menü "GEOMETRY"
- Gleichen Sie die H-, V-Amplitude und die Ost/West-Korrektur nach.Solte die Geometrieeinstellung nicht reagieren:
- Gehen Sie in das Konvergenzmenü **Level 2** und drücken die GELBE Taste auf der Fernbedienung um den GRÜN (3X5)-Abgleich zu wählen.
- Überprüfen Sie ob der Mittelpunkt des grünen Gitters in der exakten Mitte des Bildschirmes ist.
- Stellen Sie die Ränder des Gittermusters exakt auf Ränder des Bildschirmes ein.
- Gegebenenfalls korrigieren Sie die Einstellungen der äußeren Ecken im Konvergenzmenü **Level 3.**
- Gleichen Sie die ROT-Konvergenz im **Level 2** ab,ggf. korrigieren Sie Ränder im **Level 3.**
- Wiederholen Sie diessen Abgleich mit BLAU.

IMMAGINE ROSSA E BLU SPOSTATA. (I)

Regolazione statica
- Selezionare Convergence nel menu Install.
- Correggere lo spostamento utilizzando i tasti numerici.



Usando i tasti Sinistra/destra, regolare in modo ottimale le linee verticali.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- Se la regolazione ottimale è lontana dalla posizione centrale della barra grafica, è consigliabile porre questi in posizione centrale ed effettuare le correzioni con gli anelli di centratura magnetici dei tubi corrispondenti.
Sbloccare inizialmente gli anelli leggermente incollati.
- Reincollarli utilizzando colla leggera o lacca per rendere possibili successivi ritocchi.

L'AREA CENTRALE È CORRETTA.
I BORDI O UNA PICCOLA AREA SONO SCORRETTI

A - La geometria del VERDE è corretta :
- Regolare solo Rosso e Blu utilizzando **Level 3, non toccare il Verde !.**

B - Sono necesssarie piccole modifiche anche per il VERDE:
- Regolare il Verde utilizzando **Level 3** quindi correggere Rosso e Blu utilizzando **Level 3.**

È NECESSARIO APPORTARE OVUNQUE PICCOLE MODIFICHE. LA GEOMETRIA DEL VERDE È CORRETTA.

Alcune linee non sono in convergenza ma la geometria del Verde è corretta.
- Regolare Rosso e Blu utilizzando **Level 2.**
- Se necessario, correggere i bordi utilizzando **Level 3, non toccare il Verde !.**

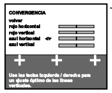
LA GEOMETRIA DEL VERDE È SCORRETTA.

A - La geometria del BLU o del ROSSO è corretta :
- Nel **Level 2** utilizzare il Pulsante giallo sul telecomando: vengono visualizzati Rosso, Verde e Blu ma le correzioni vengono effettuate nel Verde.
- Regolare il Verde perchè si sovrapponga su Rosso e/o Blu.
Le lenti Rossa o Blu per una facile regolazione devono essere coperte.
Scegliere quella più visibile e che presenta la geometria migliore.

B – La geometria del BLU o del ROSSO è scorretta :
- In Service Mode Geometry selezionare: ampiezza H/V (Orizzontale/Verticale) e East/West.
- Regolare la geometria.
Se la Geometria non è regolabile:
- Selezionare **Level 2** per il Verde (3x5).
- Controllare che il centro si trovi esattamente in centro.
- Allineare i bordi dell reticola ai bordi dello schermo.
- Se necessario, regolare la parte esterna dell'immagine utilizzando **Level 3.**
- Correggere il Rosso utlizzando **Level 2** e, se necessario, **Level 3** per i bordi.
- Ripetere la medesima procedura per il Blu.

IMAGEN ROJA Y AZUL DESPLAZADA (E)

Ajuste estático
-Seleccione la convergencia en el menú Install.
Corrija el desplazamiento con las teclas de navegación.



Use las teclas izquierda / derecha para un ajuste óptimo de las líneas verticales.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- Si el ajuste necesario está lejos de la posición central de los gráficos de barras, se recomienda situarlos en la posición central y corregirlos con los anillos de centrado magnéticos de los tubos correspondientes.
Desbloquee previamente los anillos fijados con un pegamento ligero.
- A continuación, fije de nuevo los anillos con un pegamento o una laca no muy fuerte para permitir un ajuste posterior.

EL ÁREA CENTRAL ES CORRECTA.
LOS BORDES O UN ÁREA PEQUEÑA NO SON CORRECTOS

A - VERDE tiene una geometría correcta:
- Ajuste sólo rojo y azul con el **nivel 3,no altere verde !.**

B - VERDE también necesita una pequeña corrección:
- Ajuste verde con el **nivel 3** y después corrija rojo y azul con el mismo **nivel 3.**

SE NECESITAN PEQUEÑOS AJUSTES EN TODO.
LA GEOMETRÍA VERDE ES CORRECTA

Algunas líneas carecen de convergencia, pero la geometría verde es correcta.
- Ajuste rojo y azul con el **nivel 2.**
- Corrija los bordes si es necesario con el **nivel 3, no altere el verde !.**

LA GEOMETRÍA VERDE NO ES CORRECTA

A - AZUL o ROJO tienen una geometría correcta:
- Con el **nivel 2,** utilice el botón amarillo en el control remoto: se visualizan rojo, verde y azul, pero la corrección está en verde.
- Ajuste verde para superponer en rojo o azul.
Las lentes rojas o azules se pueden cubrir. Seleccione la que sea más visible o tenga la mejor geometría.

B - AZUL o ROJO tienen también una geometría deficiente:
- En geometría del modo de serivicio, seleccione: amplitud H/V y Este/Oeste.
- Ajuste la geometría.
Si esta geometría no se puede ajustar:
-Seleccione el **Nivel 2** para verde (3x5).
- Compruebe que el centro está situado exactamente en el centro.
- Realice los ajustes necesarios para que los bordes de la rejilla coincidan con los de la pantalla.
- Ajuste la parte exterior de la imagen con el **Nivel 3** si es necesario.
- Corrija rojo con el **Nivel 2** y después con el **Nivel 3** para los bordes si es necesario.
- Repita la misma operación para azul.

INFORMATION NOTE - INFORMATION - NOTA INFORMATIVA - NOTA DE INFORMACIÓN

CORRECTION OF BANDING EFFECT (GB)

The "Banding Effect" is a non-uniform area or shadow on the screen, which can happen after convergence adjustments have been performed in Level 3, The effect can be caused by either: -- two horizontal lines being to close together (a bright area).- two horizontal lines being to far apart (a dark area).The effect is most visible on a uniform pictures (see diagram below).

Adjustment Procedure :
Identify the colour causing the problem and then blank off the other two lenses.
- Enter the convergence menu at Level 3 and select the corresponding colours alignment routine.
- Using the NUMERICAL buttons (2, 8, 6 and 4) on the RCU, position the cursor on the right hand edge of the non-uniform area of the screen.
- Remove the test grid pattern by disconnecting the cable connected to socket BK01 on the DCU board.
- Adjust the brightness of the non-uniform area using the "NAVIGATION" (up, down, left and right) buttons on the RCU.
- Select the next cursor position using the NUMERICAL buttons on the RCU and adjust its brightness.
- After completing the adjustment procedure reconnect the cable to BK01 on the DCU board.

CORREZIONE DELL' EFFETTO BANDING (I)

L'« effetto banding » è costituito da un'area non uniforme (ombra) che può prodursi dopo regolazione della convergenza (p. es. Level 3).
- Quando due linee sono troppo distanti: l'immagine è più scura.
- Quando due linee troppo sono vicine: l'immagine è più luminosa.
Ciò è visibile su un'immagine uniforme (Vedere Illustrazione sottostante).

Procedura:
- Identificare quale colore provoca il difetto coprendo le due lenti in modo che sia visibile solo un colore su un monoscopio bianco.
- Selezionare level 3 per il colore corrispondente.
- Posizionare il cursore nella giusta posizione.
- Rimuovere la griglia scollegando il cavo dal connettore BK01 sul DCU.
- Correggere la non uniformità nella luminosità.
- Spostare il cursore a destra o a sinistra per correggere il punto successivo.
- Terminate le regolazioni, non dimenticare di collegare il cavo BK01.

CORRECCIÓN DEL EFECTO DE BANDA (E)

El "efecto de banda" es un área no uniforme (sombra). Puede ocurrir después de un ajuste de convergencia (por ej., nivel 3).
- Cuando 2 líneas horizontales están demasiado cercanas: el área es más brillante.
- Cuando 2 líneas horizontales están demasiado distantes: el área es más oscura.
Es visible en una imagen uniforme (vea el dibujo más abajo).
Procedimiento:
- Identifique el color que ocasiona el fallo cubriendo 2 lentes, de modo que sólo se vea un color con una plantilla de prueba blanca.
- Seleccione el nivel 3 para el color correspondiente.
- Coloque el cursor en el lugar adecuado.
- Retire la rejilla desconectando el cable del conector BK01 en la placa DCU.
- Corrija la falta de uniformidad en el brillo.
Mueva el cursor a la derecha o a la izquierda para corregir la posición siguiente.
- No olvide conectar el cable BK01 después del ajuste.

CORRECTION DE L'EFFET DE BANDE (F)

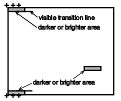
L'effet de bande est une zône d'écran non uniforme (ombre). .Ceci peut survenir après un réglage de convergence (par exemple "Level 3").
- Lorsque deux ligne horizontales sont trop proches : *la bande est brillante*
- Lorsque deux ligne horizontales sont trop distantes : *la bande est sombre.*
L'effet de bande est visible sur image fixe.(Voir Fig. ci-dessous).

Procédure :
- Identifier la couleur affectée par l'effet de bande en recouvrant deux optiques.
- Selectionner le niveau **" level 3"** correspondant à la couleur du défaut .
- Positionner le curseur à sa place exacte .
- Désélectionner la mire interne en déconnectant le connecteur BK01 de la platine DCU.
- Corriger le phénomène .
- Déplacer le curseur à gauche ou à droite pour le réglage du point suivant .
- Ne pas omettre de reconnecter le connecteur après les réglages.

KORREKTUR DES BANDING-EFFEKTES (D)

Der Banding-Effekt ist eine ungleichmäßige Zone oder ein Schatten auf dem Bildschirm. Dies kann nach einem Konvergenzabgleich im Level 3 auftreten-Der Effekt wird verursacht von.
-zwei horizontale Linien sind zu dicht zusammen (helle Zone)
-zwei horizontale Linien sind zu weit auseinander (dunkle Zone).
Der Effekt wird bei einem einfarbigen Bild am meisten sichtbar (siehe Bild unten).

Abgleich:
Stellen Sie fest, welche Farbe den Effekt verursacht indem Sie jeweils zwei Farben abdecken.
- Gehen Sie in das Konvergenzmenü **Level 3** und wählen Sie den Abgleich für die jeweilige Farbe.
- Mit der Zifferntastatur (2, 8, 6 und 4) der Ferbedienung bringen Sie den Cursor auf die rechte Kante der Zone.
- Schalten Sie das Gittermuster durch Ziehen des Kabels vom Verbinder BK01 auf der DCU-Platine aus.
- Stellen Sie die Helligkeit der Zone mit den Pfeiltasten der Fernbedienung ein.
- Bewegen Sie den Cursor auf die nächste Position und wiederholen die Einstellung.
- Nach dem Abgleich stecken Sie das Kabel wieder auf Verbinder BK01.



CONVERGENCE ADJUSTMENT - REGLAGES DES CONVERGENCES - KONVERGENZ ABGLEICH - REGOLAZIONE CONVERGENZA - AJUSTE DE CONVERGENCIA

Soft-Ver. V4.00-5 000A8 : 20
Config. ArZ-D-C
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

CONVERGENCE

△ UP ▽ DOWN ◁▷ SELECT

CONVERGENCE ALIGNMENT

Return
Alignment Mode 4:3....
Level 1 (3 x 3) ▷
Level 2 (5 x 5)
Level 3 (15 x 13)
Default
Store ☑
Restore ☐

△ UP ▽ DOWN ◁ ▷ CHANGE

LEVEL 2

LEVEL 2 ALIGNMENT 4:3

Return
Alignment Mode ▷

There are 25 points to align.
The cursor indicates current alignment point. Press Red/Blue/Green button to select colour to align.
Press Yellow to align Green to Red and Blue. Use Up/Down/Left/Right keys to adjust alignment point. Press OK to move to next alignment point.
Press EXIT when done.

LEVEL 3

LEVEL 3 ALIGNMENT 4:3

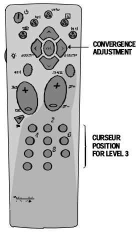
Return
Alignment Mode ▷

There are 195 points that can be aligned. The cursor indicates current alignment point. Press Red/Blue/Green button to select colour to align.
Press Yellow to align Green to Red and Blue. Use Up/Down/Left/Right keys to adjust alignment point. OK to store.
Use Remote Control keys 2, 8, 4, & 6 to select alignment point.
Press EXIT when done.

CONVERGENCE DEFAULTS

Return
Default Red/Green/Blue ☑
Default Red ☐
Default Green ☐
Default Blue ☐

△ UP ▽ DOWN ◁ ▷ CHANGE



SERVICE MODE (GB)

- Select "CONVERGENCE"

- Select the "ALIGNMENT MODE" line of the convergence menu.- Start the adjustment procedures in the 4:3 format.- Select "LEVEL 2" menu line and LEVEL 2 ALIGNMENT menu will appear.

Please Note:

-Level 1 menu line (factory alignment) must be used.
This alignment procedure must also be repeated for 16:9 format.

LEVEL 2 ALIGNMENT MENU :

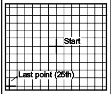
- Press the **"OK"** button on the RCU to activate the Green test grid pattern, this is used throughout the alignment procedure as a reference.
- Confirm that the Green geometry is correct.
- Press the "RED" button on the RCU to activate the red test grid, the cursor will be set to the centre point on the red grid.
- Using the "NAVIGATION" ("∧"up, "∨" down, "<" left and "▷" right) buttons on the RCU, align the red central cursor position to the green centre grid reference point.

A long press on the associated "NAVIGATION" button on the RCU will accelerate the step size of the adjustment.

- Press the **"OK"** button on the RCU to advance to the next cursor position and repeat the alignment process until all twenty five (25th = screen bottom left) alignment position have been checked.

IMPORTANT :

When the last position has been adjusted:
- **Press** the **"OK"** button on the RCU **only one time and wait for 60s**.
The microprocessor will calculate all the intermediate positions and nothing will happen for 10s, then the cursor will disappear for 15s.Finally the cursor will re-appear move back through all adjustment points to the centre point on the test grid.



- Press the "EXIT" button on the RCU to return to "Level 2" menu.
- Select "RETURN" on the menu.
- Next select "STORE" on the convergence menu.
- Check for "Banding Effect" (see information note page 32).
- Repeat the alignment procedure for "BLUE".

LEVEL 3 ALIGNMENT :

Each one of the 195 alignment point can be reached by;
- Using the NUMERICAL buttons 2 (up), 8 (down), 6 (right) and 4 (left) on the RCU to position the cursor on the screen.
- Convergence alignment is done using the "NAVIGATION" ("(∧)"up, " ▽ " down, "<" left and " ▷ " right) buttons on the RCU.
- Press the "EXIT" button on the RCU to return to "Level 2" menu.
- Select "RETURN" on the menu.
- Next select "STORE" on the convergence menu.
- Check for "Banding Effect" (see information note page 32).

IMPORTANT :

Once "Level 3" alignment is completed, do not use "Level 2" otherwise all adjustments made in "Level 3" will be ERASED.

16:9 : Select 16:9 format in the Convergence Alignment menu and repeat the above procedures.

Convergence defaults :

If the convergence alignment is completely wrong most adjustments can be made starting with the factory convergence values, these are stored in the NVM as default values.

Default Red/Green/Blue :All of the colours convergence default values are stored in the Convergence RAM IC.

Default Red
Default Green Load the values for either Red ,Green or Blue.
Default Blue

Restore : copies the last stored values from the NVM to the convergence RAM IC.

Store : Copies all Convergence RAM values to the NVM.

SERVICE MODE (F)

- Selectionner "CONVERGENCE"

- Selectionner "Alignment Mode".
- Commencer les réglages avec le format "4:3".
- Selectionner " Level 2".
  Le menu de réglage " Level 2" apparaît.

Note :

La procédure de réglage s'applique également au format 16/9.

MENU D'ALIGNEMENT "LEVEL 2" :

- Appuyer sur la touche OK de la télécommande.

La mire de convergence apparaît .

- Contrôler la Géométrie du Vert .
- Appuyer sur la touche Rouge de la télécommande pour régler le Rouge par rapport à la mire du Vert servant de référence . Le curseur est au centre.
- Utiliser les touches de navigation "∆", "∨ ","◁", et " >" de la télécommande pour effectuer le réglage. Une longue pression permet d'obtenir un effet d'accélération du réglage.

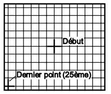
Après le réglage du centre:

- Appuyer sur **OK** pour la sélection du point suivant à régler.

Lorsque ce second point est aligné ou si aucun réglage n'est nécessaire appuyer sur la touche **"OK"**.
Effectuer ainsi jusqu'au dernier point (25)au coin inférieur gauche.

IMPORTANT :

Lorsque le dernier point est réglé :
- **Appuyer sur "OK"** **une seule fois et attendre 60s**.
Le microprocesseur calcule toutes les positions intermédiaires: rien ne se passe à l'écran durant 10s.Le curseur disparaît pendant 15s.
Finalement, via toutes les positions, il se stabilise au centre de l'écran.



- Appuyer sur "Exit" pour retourner au menu "Level 2".
- Selectionner "Return": le menu "convergence alignment"apparaît
- Mémoriser par **"store"**.
- Contrôler l'effet de Bande (Voir ci-après la Note d'Information).

Même procédure pour le Bleu.

ALIGNEMENT LEVEL 3

Chacun des 195 points de réglage est accessible :
- Utiliser les touches numériques suivantes: **2** (haut), **8** (bas), **6** (droit) et **8** (bas).
- le réglage des convergences s'effectue au moyen des touches de navigation **haut** (∆),**bas** ∨ ,**gauche** ◁ et **droit** > .
- Appuyer sur la touche "EXIT"de la télécommande pour retourner au menu "Level 2"
- Sortir du menu d'alignement des convergences et **mémoriser**.
- Contrôler l'effet de Bande (Voir la Note d'Information ci-après).

IMPORTANT :

Aprèsavoir reglé le "level 3" ne pas utiliser le "level 2", les corrections effectuées au "level 3" seraient perdues.

16:9 : Selectionner 16:9 dans le menu Mode alignement; répéter la procédure.

Valeurs par defaults :

En cas de déréglages importants des convergences,l'alignement peut être reprit à partir des valeurs usines.
Ces valeurs par défaut sont mémorisées en NVM.

Default Red/Green/Blue :Toutes les valeurs par défaut des trois couleurs sont mémorisées dans la RAM de convergence.

Default Red
Default Green Charge les valeurs pour le rouge, le Vert ou le Bleu.
Default Blue

Restore : copie toutes les valeurs des données NVM en mémoire RAM de convergence.

Store : Copie la valeur RAM en NVM de convergence.

SERVICE MODE (D)

- Wählen Sie "CONVERGENCE"

- Wählen Sie "ALIGNMENT MODE".
- Beginnen Sie den Abgleich im 4:3 Format
- Wählen Sie Level 2.
  Das "LEVEL 2 ALIGNMENT"-Menü erscheint.

Bitte beachten sie:

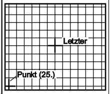
- Die Einstellungen im Level 1 sind Werkseinstellungen und sollten nicht verändert werden.
  Der Konvergenzabgleich ist auch für das 16:9 Format vorzunehmen.

ABGLEICHMENÜ "LEVEL 2" :

- Drücken Sie **OK**-Taste auf der Fernbedienung um das Grün-Gittermuster zu aktivieren. Dieses dient für den gesamten Abgleich als Referenz.
- Überprüfen Sie die Grün-Geometrie.
- Drücken Sie die rote Taste auf der Fernbedienung um das rote Gittermuster zu aktivieren. Der Cursor erscheint in der Mitte des roten Gitters.
- Mit den Pfeiltasten ("∧" hoch, " ▽ " runter, " < " links , " > " rechts) auf der Fernbedienung bringen Sie die Mitte des roten Cursors auf die Mitte des Bezugspunktes im grünen Gitter. Ein längeres Drücken der Pfeiltasten erhöht die Schrittgröße beim Abgleich.
- Drücken Sie die OK-Taste um auf die nächste Cursor-Position zu gelangen. Wiederholen Sie den Abgleich bis alle 25 Abgleichpunkte (der 25.Punkt ist links unten) korrigiert sind.

WICHTIG :

Wenn der letzte Punkt abgeglichen wurde:
- **Drücken Sie die OK-Taste nur einmal und warten Sie etwa 60s**.
Der Microprozessor berechnet alle Zwischen-positionen. Für etwa 10s geschieht nichts,dann verschwindet der Cursor für etwa 15s. Dann läuft der Cursor über alle Abgleichpunkte zurück in die Mitte des Gittermusters.



- Drücken Sie die EXIT-Taste um in das "LEVEL 2"-Menü zurückzukehren.
- Wählen Sie im Menü "RETURN".
- Wählen Sie im Konvergenzmenü "STORE" .
- Überprüfen Sie das Bild auf den Banding-Effekt (siehe Information auf Seite 32). Wiederholen Sie den Abgleich mit BLAU.

ABGLEICH LEVEL 3 :

- Jeden der 195 Abgleichpunkte auf dem Bildschirm erreichen Sie über die Zifferntastatur der Ferbedienung ("2" hoch, "8" runter, "4" links, "6" rechts).
- Der Konvergenzabgleich wird mittels der Pfeiltasten vorgenommen "(∧)" hoch, "(▽)" runter,"(◁)" links, "(▷)" rechts.
- Drücken Sie die EXIT-Taste um in das "LEVEL 2"-Menü zurückzukehren.
- Wählen Sie im Menü "RETURN".
- Wählen Sie im Konvergenzmenü "STORE".
- Überprüfen Sie das Bild auf den Banding-Effekt (siehe Information auf Seite 32).

WICHTIG :

Nach dem Abgleich im Level 3 machen Sie keine Einstellungen mehr im Level 2, da sonst die Abgleichswerte des Level 3 gelöscht werden.

16:9 : Wählen Sie das 16:9 Format im Konvergenzmenü und wiederholen Sie den gesamten Abgleich.

Konvergenz-Defaultwerte :

Sollte der Konvergenzabgleich völlig inkorrekt sein, kann ein Neuabgleich ausgehend von den Fabrikswerten ratsam sein.
Diese sind als Defaultwerte im NVM gespeichert.

Default Rot/Grün/Blau : die Defaultwerte der Konvergenz aller Farben sind im Konvergenz-RAM gespeichert.

Default Rot
Default Grün Laden Sie die Defaultwerte einzein für Rot, Grün oder Blau.
Default Blau

Restore : die zuletzt in das NVM gespeicherten Werte werden ins Konvergenz-RAM kopiert.

Store : alle Werte aus dem Konvergenz-RAM in das NVM.

SERVICE MODE (I)

- Selezionare "CONVERGENCE"

- Selezionare « Alignement Mode ».
- Avviare la regolazione con formato 4:3.
- Selezionare « Level 2 ».
- Viene visualizzato il menu Level 2 alignement.

Nota :

La procedura deve essere effettuata anche in modo 16/9.

LIVELLO 2 MENU DI REGOLAZIONE :

- Premere il tasto **"OK"** sul telecomando. Viene visualizzata la griglia verde.
- Controllare che la geometria della griglia Verde sia corretta.
- Premere il tasto Rosso sul telecomando per regolare il Rosso con la griglia Verde come riferimento.
- Il cursore si trova al centro.
- Utilizzare i tasti su, giù sinistra e destra sul telecomando per regolare la posizione di allineamento.

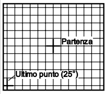
Con una lunga pressione del tasto si determina un effetto di accelerazione del passo di allineamento.
Dopo avere regolato il centro :

- Premere il tasto **"OK"** per selezionare la posizione successiva da regolare.Quando il secondo punto è stato regolato o la regolazione non è necessaria, premere il tasto **"OK"**.

Proseguire la procedura fino a raggiungere l'ultimo punto (25°) sulla parte inferiore sinistra.

IMPORTANTE :

- Quando l'ultimo punto viene regolato, premere il tasto **OK una sola volta ed attendere 60 secondi.**
Il microprocessore calcola tutte le posizioni intermedie: per 10 secondi non accade nulla. Quindi, il cursore scompare per 15 secondi. Il cursore si sposterà infine su tutte le posizioni fino al centro.



Premere « Exit » per ritornare al menu " Level 2 alignement ".
- Selezionare "Return": viene visualizzato il menu "Convergence Alignement".
- Memorizzare le regolazioni.
- Controllare la presenza d' « effetto Banding » (Vedere nota informativa). Seguire la medesima procedura per il blu.

LIVELLO 3 REGOLAZIONI :

- I 195 punti possono essere raggiunti mediante:
- L'uso dei tasti numerici RCU: 2 (su), 8 (giù), 6 (destra), e 4 (sinistra).
- La convergeznza viene regolata mediante i tasti up "(∆)" , down "(∨)", left "(◁)" e right "(▷)".
- Uscire dal menu « Convergence alignement » e memorizzare le regolazioni acquisite.
- Controllare la presenza di effetto Banding (Vedere nota informativa).

IMPORTANTE ::

Dopo avere regolato « level 3 » non utilizzare « level 2 » perchè le correzioni effettutuate al « level 3 » andrebbero perse.

16:9 :Selezionare 16:9 in Alignement Mode e ripetere la procedura.

Default di convergenza :

Se l'allineamento della convergenza è completamente errato le regolazioni possono essere effettuate richiamendo i valori di convergenza di fabbrica. Questi valori vengono memorizzati come valori di default in nella NVM.

Default Red/Green/Blue : Tutti i valori di default dei tre colori vengono memorizzati nell IC RAM di convergenza.

Default Red
Default Green Carica i valori per rosso, verde e blu
Default Blue

Restore : Copia gli ultimi valori memorizzati dalla NVM nella RAM di convergenza.

Store : Copia i valori RAM nella convergenza della NVM.

SERVICE MODE (E)

- Seleccione "CONVERGENCIA"

- Seleccione "Modo de alineación".
- Inicie los ajustes con el formato "4:3"
- Seleccione "nivel 2"
  Aparece el menú de alineación de nivel 2.

Nota:

El procedimiento debe realizarse también para 16/9.

MENU DE ALINEACION "NIVEL 2":

- Pulse **"OK"** en el control remoto y aparecerá la rejilla verde.
- Compruebe si la geometría verde es correcta.
- Pulse el botón rojo en el control remoto para ajustar rojo con la rejilla verde como referencia.
  El cursor está en el centro.
- Ajuste la posición de la alineación con las teclas del control remoto para moverse hacia arriba, abajo, izquierda y derecha. Si las pulsa de forma prolongada, se produce un efecto de aceleración en el tamaño del paso de la alineación.

Después del ajuste del centro:

- Pulse **"OK"** para seleccionar la posición siguiente a ajustar.

Cuando se ajusta este segundo punto o el ajuste no es necesario, pulse **"OK"**.
Repita la operación hasta el último punto (nº 25) en la parte inferior izquierda.

IMPORTANTE :

Cuando se ajuste el último punto:
-Pulse **"OK" una vez y espere durante 60 segundos.**
El microprocesador calcula todas las posiciones intermedias: durante 10 segundos no ocurre nada. Después, el cursor desaparece durante 15 segundos, y finalmente se mueve a todas las posiciones hasta el centro.

Comienzo
Ultimo punto (25°)

- Pulse "Salida" para volver al menú "Nivel 2".
- Seleccione Return: aparece el menú de alineación de convergencia.
- Almacene.
- Compruebe si se produce el efecto de banda (vea la nota de información).Siga el mismo procedimiento para azul.

ALINEACION NIVEL 3 :

Se pueden alcanzar los 195 puntos:
- Utilice los botones de número RCU: 2 (arriba), 8 (abajo), 6 (derecha) y 4 (izquierda).
- La convergencia se ajusta mediante las teclas de navegación hacia arriba, abajo, izquierda y derecha.
- Salida a almacenar y menú de alineación de convergencia.
- Compruebe si se produce el efecto de banda (vea la nota de información)

IMPORTANTE ::

Una vez configurado el "nivel 3", no utilice el "nivel 2" o perderá las correcciones efectuadas en el 3.

16:9 Seleccione 16:9 en el modo de alineación y repita el procedimiento

Parámetros de convergencia por defecto:

Si la alineación de convergencia es totalmente errónea, la mayor parte de los ajustes se pueden realizar con los valores de convergencia de fábrica.Estos parámetros se almacenan como valores por defecto en una memoria no volátil.

Default Red/Green/Blue :todos los valores por defecto de los tres colores se almacenan en la memoria de acceso aleatorio (RAM) IC de convergencia.

Default Red
Default Green Cargue los valores para rojo, verde o azul.
Default Blue

Restore : copia los últimos valores almacenados de la memoria no volátil a la RAM de convergencia

Store : copia los valores RAM en la NVM de convergencia.

Note :

In the event of it being necessary to replace all three tubes (tubes marked or still operational), it is easier, when making convergence adjustments, to replace one tube first, and converge it to the two other tubes in order to keep the original geometry setting.
Then replace the two other tubes and realign them to the reference tube.

En cas de nécessité de changement des trois tubes (tubes marqués ou encore fonctionnels) il est plus simple, au niveau du réglage des convergences, de changer d'abord un tube, de le converger sur les deux autres pour conserver le réglage de géométrie original.
Ensuite changer les deux autres tubes et les réaligner sur le tube de référence.

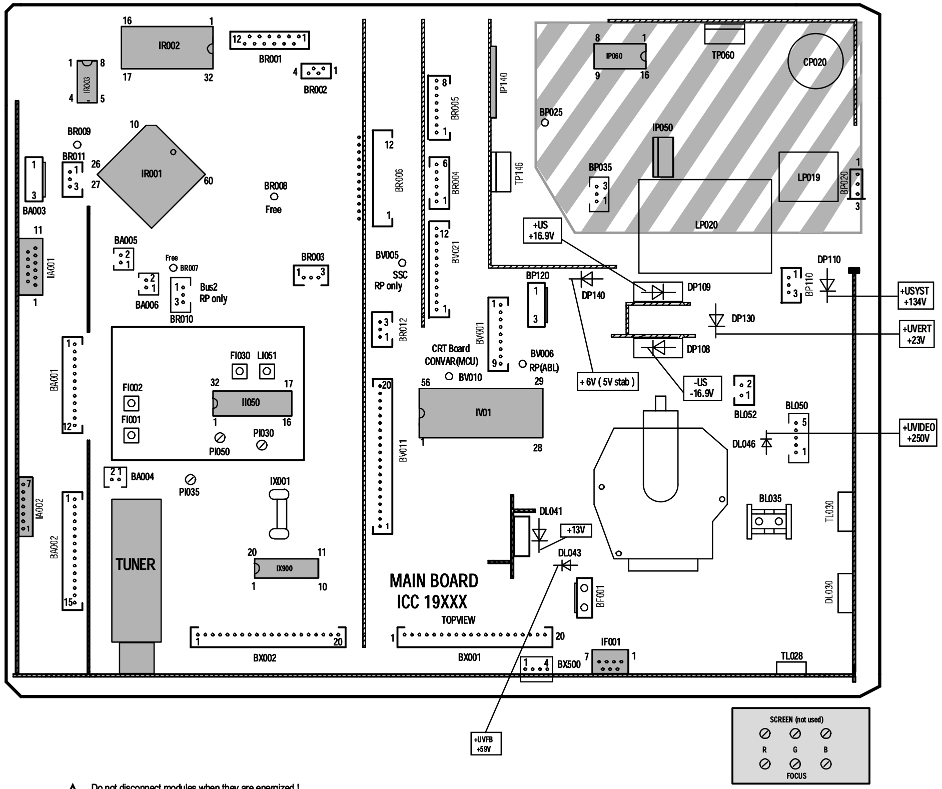
Im Falle, daß ein Auswechseln aller drei Röhren notwendig ist, ist es einfacher (falls die Röhren noch funktionsfähig sind), die notwendige Konvergenzeinstellung so vorzunehmen, daß zunächst erst eine Röhre ausgewechselt wird: Gleichen Sie diese den beiden alten Röhren an, damit Sie die originale geometrische Einstellung haben.
Wechseln Sie dann die beiden anderen Röhren und gleichen Sie diese der Referenzröhre an.

Nel caso in cui si renda necessaria la sostituzione dei tre tubi (tubi marcati o ancora in funzione) è più semplice, quando si eseguono regolazioni della convergenza, sostituire prima un tubo e convergerlo agli altri due per conservare la regolazione di geometria iniziale. Sostituire quindi gli altri due tubi e riallinearli al tubo di riferimento.

Si necesita cambiar los 3 tubos (tubos marcados o aún funcionales), resulta más fácil, en lo que respecta al ajuste de las convergencias, cambiar primero un tubo y convergirlo sobre los otros 2 para mantener la configuración de la geometría original.
Cambie seguidamente los otros dos tubos y proceda a realinearlos con el tubo de referencia.

LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - SERVICE LAGEPLAN - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES

MAIN BOARD - PLATINE PRINCIPALE - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES


IR002
BR001
BR002
IR003
BR009
BR011
IR001
BR008
Free
BA003
IA001
BA005
Free
BR007
BA006
Bus2
RP only
BR010
BR003
BA001
FI030
LI051
FI002
FI001
II050
PI050
PI030
BA004
PI035
IX001
IA002
BA002
TUNER
IX900
BX002
BR006
BV005
SSC
RP only
BR012
BV011
BR005
BR004
BV021
CRT Board
CONVAR(MCU)
BV010
BV001
BV006
RP(ABL)
IV01
MAIN BOARD
ICC 19XXX
TOPVIEW
BX001
BX500
IF001
IP140
TP146
IP060
TP060
CP020
BP025
IP050
BP035
LP019
BP020
LP020
+US
+16.9V
BP120
DP140
DP109
DP130
DP108
DP110
BP110
+USYST
+134V
+UVERT
+23V
+ 6V (5V stab)
-US
-16.9V
BL052
BL050
DL046
+UVIDEO
+250V
BL035
TL030
DL041
+13V
DL043
BF001
DL030
TL028
+UVFB
+59V
SCREEN (not used)
R
G
B
FOCUS

⚠ Do not disconnect modules when they are energized !
Repairs on power supply section are to be carried out only with isolating transformer.

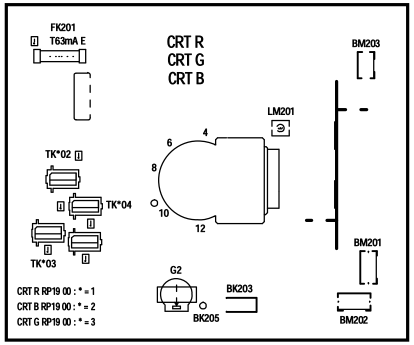
Ne pas retirer les modules lorsqu'ils sont sous tension.
N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch mode) qu'au travers d'un transformateur d'isolement.

Module nicht bei eingeschaltetem Gerät entfernen !
Servcearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

Non scollegare i moduli quando sono alimentati !
effettuare riparazioni sulla sezione alimentatore solo con transformatore isolante.

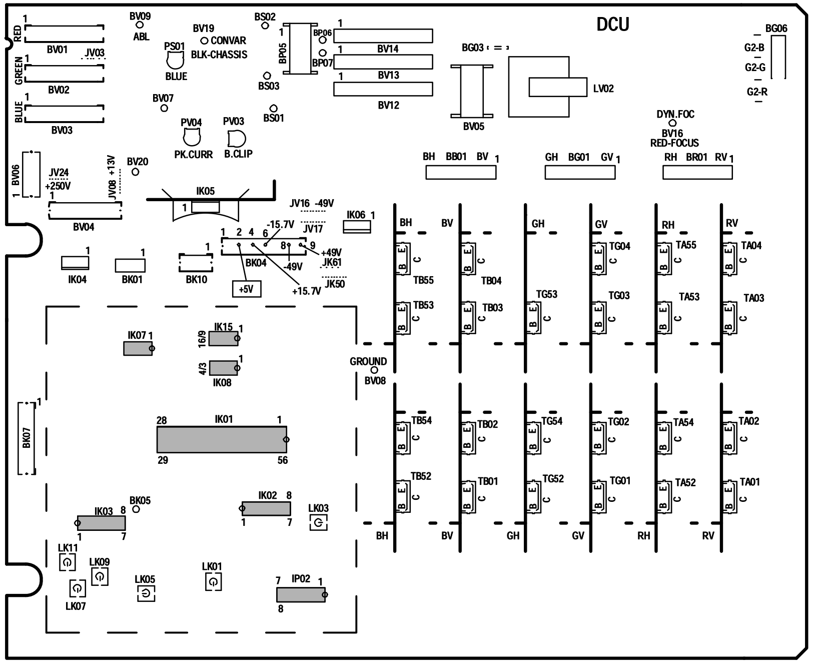
No desconectar los módulos cuando están activados !
Las reparaciones en la sección de alimentación de energia deben ser ejecutadas solamente con un transformador de separacíon.

▨ Part of Board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseitedes Netzteils
Parte del pannello collegato alla rete di alimentazione
Parte del chasis conectada a la red

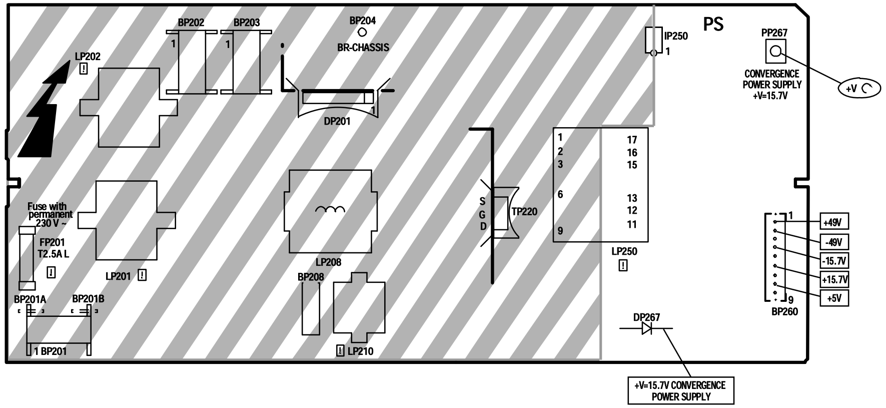

FK201
T63mA E
CRT R
CRT G
CRT B
BM203
LM201
TK*02
TK*04
TK*03
6
4
8
10
12
G2
BK203
BK205
BM201
BM202

CRT R RP19 00 : * = 1
CRT B RP19 00 : * = 2
CRT G RP19 00 : * = 3

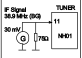
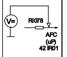
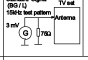
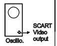
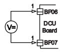
DIGITAL CONVERGENCE UNIT - PLATINE DE CONVERGENCE NUMERIQUE - DIGITALE KONVERGENZEINHEIT - UNITÀ DI CONVERGENZA DIGITALE - UNIDAD DE CONVERGENCIA DIGITAL


DCU
RED
BV01
JV03
GREEN
BV02
BLUE
BV03
BV09
ABL
PS01
BLUE
BV19
CONVAR
BLK-CHASSIS
BV07
PV04
PK.CURR
PV03
B.CLIP
BS02
BP05
BP06
BP07
BS03
BS01
BV14
BV13
BV12
BG03
BV05
LV02
BG06
G2-B
G2-G
G2-R
DYN.FOC
BV16
RED-FOCUS
BH BB01 BV
GH BG01 GV
RH BR01 RV
BV06
JV24
+250V
JV08 +13V
BV20
BV04
IK05
JV16 -49V
JV17
IK06
-15.7V
BK04
+49V
JK61
-49V
JK50
+15.7V
+5V
IK04
BK01
BK10
IK07
IK15
16/9
4/3
IK08
BK07
IK01
GROUND
BV08
IK03
BK05
IK02
LK03
LK11
LK09
LK07
LK05
LK01
IP02
BH
BV
GH
GV
RH
RV
TB55
TB53
TB04
TB03
TG53
TG04
TG03
TA55
TA53
TA04
TA03
TB54
TB52
TB02
TB01
TG54
TG52
TG02
TG01
TA54
TA52
TA02
TA01
B
E
C

DIGITAL CONVERGENCE UNIT POWER SUPPLY - ALIMENTATION PLATINE DE CONVERGENCE NUMERIQUE - NETZTEIL KONVERGENZEINHEIT - ALIMENTAZIONE UNITÀ DI CONVERGENZA DIGITALE- ALIMENTACIÓN UNIDAD DE CONVERGENCIA DIGITAL

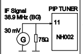
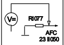
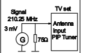
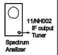

PS
LP202
BP202
BP203
BP204
BR-CHASSIS
DP201
IP250
PP267
CONVERGENCE
POWER SUPPLY
+V=15.7V
+V
Fuse with
permanent
230 V ~
FP201
T2.5A L
LP201
LP208
BP208
TP220
S
G
D
LP250
BP201A
BP201B
BP201
LP210
BP260
+49V
-49V
-15.7V
+15.7V
+5V
DP267
+V=15.7V CONVERGENCE
POWER SUPPLY

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

U Sys	SERVICE MODE	Standard TV - Settings : ☼ + ◕ + ◐ = 50% TV to AV1 : Black test pattern	 	see table below
PS Convergence Power Supply	PP67	Standard TV - Settings : ☼ + ◕ + ◐ = 50%	 	Adjust PP67 : V=15.7V +/- 0.1V
MAIN IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) TUNER 30 mV 11 G 75Ω NH01	 	Adjust FI30 / PI54 for 2,5VDC +/-0.1V
MAIN VIDEO-LEVEL Alignment	PI030 PI035	Standard Signal (BG / L) 15kHz test pattern  	 	Adjust PI030 : standard BG Adjust PI035 : standard L V = 0,7 Vpp (Black/white level)
H - VCO	SERVICE MODE	See Adjustment in Service Mode (GEOMETRY Menu)		
DCU Vertical Power Stage Zero	SERVICE MODE V POSITION	Standard TV - Settings : ☼ + ◕ + ◐ = 50%	 	DC Voltage - V to minimum. (=0 if possible)

TUBE NAME	DESCRIPTION	Usys jumper	Usys
RP - 4/3 RP - 16/9	4/3 46" - 52" 16/9 46" - 52"	JP915	134V +/- 0.5V

RF / IF PART FEP 19100 PIP

IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) PIP TUNER 30 mV 11 G 75Ω NH002	 	Adjust FI30 for 2,5VDC +/-0.1V
TUNER-AGC	PI050	 Signal 210.25 MHz TV set 3 mV Antenna Input PIP Tuner G 75Ω	 	Adjust PI050 : Maximum level Reduce level with PI50 about 10dB.

U G2 - DEFLECTION YOKE POSITION - CENTERING MAGNETS

To gain access to the Red, Green and Blue G2 Controls, Deflection Yokes or the Adjustment Magnets, proceed as follows :
- Using a suitable screwdriver push the front panel fixing button in the direction shown (Fig 1).
- Carefully pull down the front panel and remove it as shown and store safely.

Pour accéder aux réglages de G2 Rouge, Vert et Bleu , aux déviateurs ainsi qu'à leur aimant de réglages, appuyer en vous aidant d'un tournevis sur l'ergot de maintien du coffret de face avant dans le sens de la flèche et rabattre puis déposer le coffret (Fig.1).

Um Zugang zu den G2-Einstellern (Rot, Grün, Blau), Ablenkeinheiten und Ausgleichsmagneten zu erhalten
- drücken Sie mit einem passenden Schraubendreher den Befestigungsknopf der Frontabdeckung in die angegebene Richtung (Fig.1).
- ziehen Sie die Frontabdeckung vorsichtig nach unten und entfernen sie wie angegeben.

Per accedere alle funzioni controlli G2 Rosso, Verde e Blu, giogo di deflessione e regolazione magneti, procedere come indicato,
con un apposito cacciavite, premere i tasti di fissaggio del pannello frontale come indicato nella figura (Fig.1).
Piegare il pannello con cura e fissarlo come descritto.

Para tener acceso a los ajustes G2 del Rojo, Verde y Azul, así como a los Yugos de Deflexión y a sus imanes de ajuste, procede como sigue.
- Utilizando un destornillador adecuado, empujar el botón de fijación del panel frontal en el sentido indicado en la Fig.1.
- Tirar hacia abajo con cuidado del panel frontal y retirarlo como se muestra en la figura.

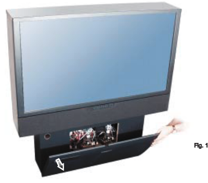
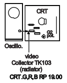
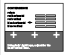


Fig. 1

CRT U G2 METHOD 1 Measurment method	G2 potentiometer G2 Red : PV101 G2 Blue : PV201 G2 Green : PV301	Standard TV - Settings : ☼ + ◕ + ◐ = 50% TV to AV1 : Black test pattern	 CRT G2 pot. Oscillo. video Collector TK103 (radiator) CRT.G,R,B RP 19.00	CRT 1 - Adjust VG2 CRT. R : V= 180V 2 - Repeat for : CRT G , CRT B.
METHOD 2 Cutoff counter method SERVICE MODE	SERVICE MODE	Standard TV - Settings : ☼ + ◕ + ◐ = 50% No test pattern (generated by internal text processor).	SERVICE MODE Call up VIDEO alignment menu Initially set R_Cut-off and G_Cut-off to 80H. Select G2 Alignment in Service Mode Adjust the 3 G2 Pot. on 3 CRT Boards for R=28; G=28; B=28 Select "Restore" in Service Mode and press "OK" to restore the cut-off values.	

DEFLECTION YOKE POSITION	Yoke Déviateur	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◐ = 50%	👁	Horizontal line

GREEN DEFLECTION YOKE POSITION	(GB) - Loosen the deflection yoke securing screw B (See Fig.1 p.19). - Rotate the deflection yoke until the centre line of the grid pattern is horizontal. - Whilst push the deflection yoke hard up against the tubes bulb, tighten the securing screw B with a non-magnetic driver to a torque of 125 +/- 10cm.Newton's .	- Rotate the Green deflection yoke.
POSITION DEVIATEUR VERT	(F) - Dessérer la vis de blocage B (Fig. 1 p.19). - Tourner le déviateur pour obtenir la ligne centrale de la mire la plus horizontale possible. - Pousser le déviateur dans la direction du col, et serrer la vis de blocage B avec un outil non magnétique (125 +/- 10cm.N de couple) . (Voir Fig. 1. p.19).	- Tourner le déviateur Vert.
POSITION DER ABLENKEINHEIT FÜR GRÜN	(D) - Lösen Sie die Schraube B der Ablenkspule (Siehe Fig. 1 Seite 19). - Drehen Sie die Ablenkeinheit so, daß die Mittellinie des Gitters horizontal verläuft. - Drücken Sie die Spule fest in Richtung Röhrenkörper, wenn Sie die Schrauben mit einem nichtmagnetischen Werkzeug anziehen (125+/- 10 N/cm Drehmoment) (Siehe Fig. 1 Seite 19).	- Drehen Sie die Ablenkeinheit für "Grün"
POSIZIONE DEL GIOGO DI DEVIAZIONE MAGNETICA VERDE.	(I) - Svitare la vite B del giogo magnetico (Vedere illustrazione a pag.19). - Ruotare il giogo di deviazione magnetica in modo che la linea centrale della griglia sia orizzontale. - Spingere energicamente il gioco magnetico verso il bulbo del tubo e serrare la vite del giogo con un utensile non magnetico (utensile dinamometrico 125 +/- 10cm.). Vedere illustrazione 1 a pag.19.	- Ruotare il giogo di deviazione magnetica Verde.
- POSICIÓN DEL DESVIADOR VERDE.	(E) - Afloje el tornillo B del desviador (véase el dibujo 1, página 19). - Gire el desviador para que la línea central de la rejilla esté horizontal. - Empuje el desviador con fuerza en la dirección de la bombilla del tubo y ajuste el tornillo del desviador con una herramienta no magnética (125+/-10 cm.N, véase par). Vea el dibujo,página 19.	- Gire el desviador verde.
RED AND BLUE DEFLECTION YOKE POSITION	(GB) - Cover the Blue Lens. - Loosen the RED deflection yoke securing screw B and rotate the deflection yoke until the red horizontal centre line is parallel with the green line and tighten the securing screw. - Cover the RED lens and repeat the process for the BLUE deflection yoke.	- Rotate the red and Blue deflection yoke.
POSITION DEVIATEUR ROUGE ET BLEU	(F) - Couvrir l'objectif du tube Bleu. - Tourner le déviateur Rouge (voir ci-dessus) pour avoir la ligne centrale horizontale Rouge parallèle à celle de la ligne verte. - Faire de même pour le Bleu.	- Tourner les déviateurs Rouge et Bleu.
POSITION DER ABLENKEINHEITEN FÜR ROT UND BLAU	(D) - Decken Sie die blaue Linse ab - Drehen Sie die "rote" Ablenkeinheit (wie oben beschriebenen) so, daß die rote Mittellinie parallel zu der grünen verläuft. - Verfahren Sie so auch mit der "blauen" Einstellung.	- Drehen Sie die Ablenkeinheiten für "Rot" und "Blau"
- POSIZIONE DEL GIOGO DI DEVIAZIONE MAGNETICA ROSSO E BLU.	(I) - Coprire le lenti blu - Ruotare il giogo di deviazione magnetica Rosso (vedere la procedura descritta in precedenza) in modo che la linea centrale Rossa sia parallela alla linea Verde. - Seguire la medesima procedura per il giogo di deviazione magnetica Blu.	- Ruotare il giogo di deviazione magnetica Rosso e Blu.
- POSICIÓN DEL DESVIADOR ROJO Y AZUL.	(E) - Cubra la lente azul - Gire el desviador rojo (véase el proceso anterior) para colocar la línea central horizontal roja paralela a la verde. - Siga el mismo proceso con la azul.	- Gire el desviador rojo y azul.

MAGNETIC CENTERING OF GREEN RED BLUE PICTURE	Centering magnets	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◐ = 50% 1 - Set all bargraphs of convergence static adjustments to center.	👁 ⇄ - Center the green grid with the centering magnets. - After adjustments realign H AMP in Service Mode. - Do the same process for Blue and Red. - After the adjustment fix the centering magnets with a "neopren" paste.
CENTRAGE MAGNETIQUE DES IMAGES VERTE, ROUGE ET BLEUE	Aimants de réglages	1 - Positionner les bargraphs de réglages de convergence statique à mi-course.	- Centrer la grille verte avec les aimants de réglages. - Après réglage réaligner H AMP dans le Service mode. - Procéder de même pour le Bleu et le Rouge. - Fixer les anneaux avec une colle de contact ("néoprène").
MAGNETISCHE ZENTRIERUNG DES GRÜNEN, ROTEN UND BLAUEN BILDES	Zentrier-magnete	1 - Stellen Sie alle Anzeigebalken der Statischen Konvergenzeinsteller auf Mittelstellung.	- Zentrieren Sie das grüne Gitter mit den Zentriermagneten. - Nach diesen Einstellungen stellen Sie die Horizontal-amplitude im Service-Mode ein. - Verfahren Sie so auch mit Blau und Rot. - Nach der Justierung fixieren Sie die Zentriermagnete mit einer "Neopren-Paste"
	Centrare i magneti.	1 - Regolare al centro tutte le barre grafiche delle regolazioni di convergenza statica.	- Centrare la griglia verde utilizzando i magneti di centratura. - Dopo avere effettuato le regolazioni riallineare H AMP nel Service mode. - Seguire la medesima procedura per il giogo magnetico rosso e blu. - Dopo avere effettuato le regolazioni fissare i magneti di centratura con pasta di policloroprene.
	Imanes de centrado.	1. Fije todos los gráficos de barras de ajuste estáticos de convergencia en el centro.  INSTALLATION MENU : Press "INSTALL" on the RC keyb. 2 - SERVICE MODE : GEOMETRY : H AMP.	- Centre la rejilla verde con los imanes de centrado. - Después de realizar los ajustes, alinee de nuevo H AMP en modo servicio. - Lleve a cabo el mismo procedimiento para azul y rojo. - Después del ajuste, fije los imanes de centrado con una pasta de neopreno.

FOCUS	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◐ = 50%	👁	Sharp picture

MAIN FOCUS Red FOCUS Blue FOCUS Green	FOCUS Block Optical Focus	(GB) **1 - FOCUS Red** - Cover booth the Green and Blue lenses. - Adjust the focus of the red line with the associated focus potentiometer on the Focus Block. **2 - FOCUS Green and Blue** - Repeat the procedure outlined above for both the green and blue lenses. - When adjusting the Blue lens optimise the focus of the left-hand vertical lines. OPTICAL FOCUS: *Access for optical focus adjustment is via the rear of the unit.* - Loosen the lenses small locking wing nut (A) (see figure 1.) - Finely adjust the optical focus, compromising the focus between the centre and corners. - Tighten the small locking wing nut.
FOCUS Rouge FOCUS Bleu FOCUS Vert	Bloc optique	(F) **1 - FOCUS Rouge** - Couvrir les tubes Vert et Bleu. - régler la concentration des lignes rouges avec le potentiometre de Focus . FOCUS OPTIQUE :*Réglage effectué par l'arrière de l'appareil.* - Dessérer les ailettes de blocage (A) (voir figure ci-dessous). - Tourner la lentille pour obtenir un réglage fin: compromis entre centre et coin. - Serrer les ailettes de blocage du bloc optique. **2 - FOCUS Vert et Bleu** répéter la totalité de la procédure pour les tubes vert et Bleu. Pour la concentration de l'optique Bleu optimiser le réglage sur une ligne verticale à gauche de l'écran .
FOKUS Rot FOKUS Blau FOKUS Grün	Optical Focus	(D) **1 - FOKUS Rot** - Decken Sie die grüne und die blaue Linse ab. - Stellen Sie den Fokus der roten Linien mit dem entsprechenden Fokuspotentiometer auf dem Fokusblock ein. OPTISCHER FOKUS :*Die Einstellung des optischen Fokus kann von der Rückseite des Gerätes vorgenommen werden.* - Lösen Sie die kleinen Flügelmutter (A) an der Linse (siehe Abb. 1). - Stellen Sie vorsichtig den optischen Fokus ein: Suchen Sie einen Kompromiß im Fokus der Bildmitte und der Bildecken. - Ziehen Sie die Flügelmuttern wieder an **2 - FOKUS Grün und Blau** Wiederholen Sie die oben beschriebenen Einstellungen für Grün und Blau. Bei der Einstellung des optischen Fokus Blau optimieren Sie die senkrechten Linien am linken Bildrand.
	Optical Focus	(I) **1 - FUOCO Rosso** - Coprire le lenti verde e blu. - Regolare il fuoco delle linee rosse utilizzando il potenziometro sul blocco della messa a fuoco. FUOCO OTTICO: Regolazione effettuata dal retro dell'apparecchio. - Svitare le alette (A) (Vedere illustrazione 1). - Mettere a punto il fuoco ottico: mantenendoun compromesso tra centro e angolo. - Fissare le alette del blocco ottico. **2 - FUOCO VERDE E blu** - Ripetere l'intera procedura per la messa a fuoco verde e blu. - Per il fuoco ottico blu ottimizzare la linea verticale sinistra.
	Optical Focus	(E) **1 - FOCO rojo:** - Cubra las lentes verde y azul. - Ajuste el foco de las líneas rojas con el potenciómetro de las mismas en el bloque de foco. FOCO ÓPTICO :*El ajuste del enfoque óptico se realiza desde la parte trasera del aparato.* - Aflojar la lente con la tuerca (A) (ver fig.1) - Ajustar el enfoque óptico, manteniendo un compromiso entre el centro y las esquinas. - Fijar la lente con la tuerca. **2 - FOCUS Green and blue** Repeat the whole procedure for green and blue. For Blue optical focus optimize the vertical left line.

OPTICAL BLOCK :
BLOC OPTIQUE :
OPTISCHE EINHEIT :
BLOCCO OTTICO :
BLOQUE ÓPTICO :

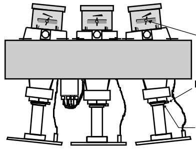
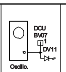
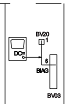


Fig. 1

A
Accessible via the rear of the unit.
Accessible par l'arrière de l'appareil.
Einstellung von der Rückseite des Gerätes
Accesso possibile dal retro dell'apparecchio.
Accesible desde la parte trasera del aparato.

B
Yoke screw
Vis déviateur
Vite del giogo magnetico
Tornillo del desviador

Push when screwing
Pousser et serrer
Fissaggio
Empujar y apretar

DCU DIGITAL CONVERGENCE UNIT		☼ + ◕ = 50% ◐ = 100% white= 100% blanc= 100%	 	Control CUT-OFF and DRIVE adjustment (Service Mode p.26) Contrôler les réglages de CUT-OFF et DRIVE (Mode Service p.26) Abgleich der CUT OFF-und DRIVE-Einstellungen (siehe Service Mode S.26) Controllare la regolazione CUT-OFF e DRIVE (Vedere Service Mode a pag.26). Ajustes de CUT-OFF y DRIVE (modo de servicio, pag. 26)
Peak Limiter Blue Peak Limiter	PV03 PV04	- Turn PV03 fully clockwise and PV04 fully anticlockwise. - Slowly turn PV04 clockwise until the voltage V=0.95V, if this voltage cannot be reach then rotate PV03 slightly anticlockwise and repeat adjustment of PV04 until V=0.95V. - Now adjust PV03 so that V=0.85V and readjust PV04 for a limit of V=0.95 V. - Tourner à fond PV03 dans le sens des aiguilles d'une montre. - Tourner à fond PV04 dans le sens inverse des aiguilles d'une montre, puis augmenter doucement jusqu'à V=0.95V. (Si on ne peut pas atteindre 0.95V tourner un peu PV03 pour que le réglage soit possible). - Régler ensuite PV03 pour V=0.85V. et retoucher PV04 à la limite de V=0.85V - Drehen Sie den Regler PV03 an den Rechtsanschlag. - Drehen Sie den Regler PV04 an den Linksanschlag und stellen Sie dann langsam 0,95 V ein. (Wenn keine 0.95 V erreicht werden können, drehen Sie bitte leicht an PV03, so daß die Einstellung erreicht werden kann). - Dann pegeln Sie mit PV03 0,85 V ein und justieren mit PV04 die Grenze von 0,95 V. - Girare a fondo in senso orario PV03. - Girare a fondo in senso antiorario PV04, quindi aumentare lentamente fino a V=0,95V. (Se non si riesce a raggiungere 0.95V, girare leggermente PV03 per consentire la regolazione). - Regolare poi PV03 al valore di V=0.85V e regolare ancora PV04 al limite di V=0,95V. - Gire PV03 al máximo en el sentido de las agujas del reloj. - Gire PV04 al máximo en sentido contrario al de las agujas del reloj y después aumente suavemente hasta que V=0.95 V. (Si no puede alcanzar 0.95V, gire un poco PV03 para posibilitar el ajuste). - Ajuste a continuación PV03 para que V=0.85V y reajuste PV04 hasta el límite de V=0.95 V		
DC-Compensation level (blue gamma) adjustment Réglage du niveau de compensation (Gamma bleu) Einstellung DC-Kompensations-Pegel (Blau Gamma) Regolazione livello di compensazione DC (gamma blu). Ajuste de nivel de compensación DC (gamma azul)	PS01	☼ + ◕ + ◐ = 50% AV1 : No signal	 	1- Jumper BS02 ⟶ BS01 -Record the voltage value V -Noter la valeur de la tension V -Notieren Sie den Wert Spannung V -Notare il valore della tensione V -Anotar el valor de la tensión V 2.0V < V < 3.0V 2- Jumper BS02 ⟶ BS03 -Adjust PS01 to obtain V on Pin BV20. - Régler PS01 pour obtenir V sur BV20 -Stellen Sie an BV20 mit dem Einsteller PS01 die Spannung V ein. -Regolare PS01 per ottenere V su pin BV20. - Ajuste PS01 para obtener V en 1 de BV20.. *After the adjustment leave BS02 to BS03.* *Après réglage laisser BS02 connecté à BS03.* *Nach der Einstellung lassen Sie BS02 auf BS03* *Dopo avere effettuato la regolazione separare BS02 e BS03.* *Después del ajuste, deje BS02 a BS03*
GEOMETRY adjustments	SERVICE MODE	See adjustment in Service Mode (GEOMETRY Menu) Siehe Abgleich im Service Mode (GEOMETRY Menü)		
COLOUR adjustments		See adjustment in Service Mode (VIDEO Menu) Siehe Abgleich im Service Mode (VIDEO Menü)		
CONVERGENCE KONVERGENZ CONVERGENZA CONVERGENCIA	SERVICE MODE	See adjustments in "Service Mode (Convergence Alignment Menu) ". Siehe Abgleich im Service Mode (CONVERGENCE Menü)		

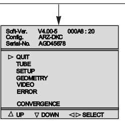
I - ENTER/EXIT SERVICE MODE - ENTREE/SORTIE DU MODE SERVICE - EIN-UND AUSSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

SERVICE MODE (GB)

1 ACCESSING THE SERVICE MODE

TV Control Panel Access

- Switch “Off” the mains supply to the TV .
- Whilst holding depressed the **PR-** and **VOL-** on the projector keyboard, switch “On” the mains supply to the TV.
- Once initialised, the Main Service Menu will appear on the screen of the TV.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Note :

In service mode :
- *The child lock function is re-initialised*
- *The lock function (PIN Number) is ignored.*
- *All Wake-up/Sleep timer settings are cleared.*
- *SCART socket pin 8 switching voltages is ignored.*
- *AV- Link WSS detection , EPG and Teletext functions are disabled.*
- *Automatic standby mode switching functions (no conditions) are disabled.*
- *Brightness, Colour and Contrast are set to factory settings.*
- *Sharpness settings are set to MID position.*
- *Contrast expander is set to low.*
- *Automatic Install mode is disabled.*
- *Format and Zoom are reset to factory defaults.*

2 TEMPORARY EXIT FROM SERVICE MODE

- Press the “Exit” button on the RCU.
- Pressing the “Men” button on the RCU will active the customer menus.

- The Service Menu can be re-entered by pressing the “Blue” button on the RCU.

3 EXITING FROM SERVICE MODE

Remote Control / **TV Control Panel**
- Select the “QUIT” line of the “Main Service Menu.
- Press «<», «OK» or «>» button / - Press «VOL.+»button
- TV mode.

“On/Off” or “Standby” buttons
- RCU “Standby” button or switch “Off” mains supply

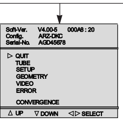
Values or adjustments not stored before exiting the service mode will not be saved in the NVM

MODE SERVICE (F)

1 ACCES AU MODE SERVICE

Accès avec le clavier du téléviseur

- Arrêter le TV avec la touche **M/A.**
- Tout en appuyant sur les touches **PR - et VOL -** , mettre le TV en service à l'aide de la touche **M/A.**
- Maintenir enfoncées les touches **PR - et VOL -.**
Le menu suivant apparaît.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Note :

En mode service:
- *Le verrouillage parental est effacé (réinitialisé).*
- *La fonction de verrouillage (Pin number) est ignorée.*
- *La programmation des heures «reveille/matin» est annulée.*
- *Possibilité de passer en mode service avec commutation lente active.*
- *AV- Link , la détection WSS, l'EPG et le Vidéotexte ne sont pas validés.*
- *La fonction de stand-by automatique en cas d'absence de signal d'antenne n'est pas validée.*
- *Les valeurs de réglages usine sont affectées au contraste, à la couleur et à la lumière.*
- *Le contour est appelé à sa valeur moyenne.*
- *L'expansion contraste est au niveau bas.*
- *Le mode d'installation et l'ambiance «Light sensor» ne sont pas valides.*
- *Zoom et format ignorées.*

2 SORTIE TEMPORAIRE DU MODE SERVICE

- Utiliser la touche Exit de la télécommande.
- Le menu utilisateur peut être accessible via la touche «Menu».

- Pour entrer à nouveau dans le mode service utiliser la touche bleue.

3 SORTIE DEFINITIVE DU MODE SERVICE

télécommande / **clavier du téléviseur**
- Aller au point «QUIT» dans le menu principal du mode service.
- Appuyer sur «<», «OK» ou «>» / -Appuyer sur «VOL+»
- Mode TV.

Inter M/A ou Stand-by
- Foncion Stand-by ou «off» par M/A

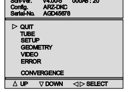
Les valeurs ou réglages non mémorisées avant la sortie ne seront pas écrites en NVM.

SERVICE - MODE (D)

1 EINSTIEG IN DEN SERVICE MODE

Zugriff über die Tastatur des Fernsehgeräts

- **Fernsehgerät** über die EIN/AUS - Taste ausschalten.
- Gleichzeitig die Tasten PR- und VOL- drücken und den TV über die EIN/AUS-Taste einschalten.
- Die Tasten PR- und VOL - gedrückt halten.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Anmerkung :

Im SERVICE MODE :
- *wird die Sperrfunktion (PIN-Nummer) ignoriert und die Kindersicherung gelöscht (reinitialisiert).*
- *werden alle Ein- und Ausschaltzeitgeber gelöscht.*
- *wird die SCART - Schaltspannung ignoriert.*
- *werden AV- Link WSS, EPG und Videotext gesperrt*
- *wird die Automatische Abschaltung bei fehlendem Antennensignal gesperrt.*
- *werden Kontrast, Farbe und Helligkeit auf Standardwerte gesetzt.*
- *wird die Bildschärfe auf Mittelstellung gesetzt.*
- *wird der Kontrast-Expander auf "gering.." gesetzt.*
- *wird der Installations-Modus gesperrt.*
- *wird das Standardformat bzw. der Standard-Zoom-Modus gewählt.*

2 VORÜBERGEHENDES VERLASSEN DES SERVICE MODE

- Auf der Fernbedienung EXIT drücken.
- Mit der Taste Menü gelangen Sie zum Übersichts menü.

- Mit der blauen Taste gelangen Sie zum Service-Menü .

3 ENDGÜLTIGES VERLASSEN DES SERVICE MODE

Fernbedienung / **TV-Bedienfeld**
- Wenn der Zeiger im Hauptmenü des Service-Modus auf BEENDEN steht
- Taste «<», «OK» oder «>»drücken / -Taste «VOL+» drücken
- TV Modus

EIN /Aus - Taste
- Mit Standby-Funktion oder EIN/AUS - taste ausschalten

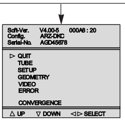
Werte und Einstellungen, die nicht vor dem Verlassen des Service-Modus gespeichert wurden, werden nicht in den Permanentspeicher übernommen

SERVICE - MODE (I)

1 ACCESSO AL SERVICE MODE

tramite i comandi del televisore

- Spegnere il TV mediante il pulsante ON/OFF.
- Premere i tasti **PR- e VOL-** accendendo il TV con il pulsante ON/OFF.
- Premere i pulsanti **PR - e VOL -.**


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Nota :

Nel service mode:
- *la funzione Blocco (Numero Pin) viene ignorata e la funzione Blocco Bambini è reinizializzata.*
- *Cancella la programmazione sveglia*
- *Il piedino 8 della scart viene ignorato.*
- *I riconoscimenti AV-Link WSS, EPG e televideo vengono disabilitati.*
- *Funzione automatica di standby, nel caso di mancanza del segnale d'antenna viene disabilitata.*
- *Contrasto, colore, luminosità : regolazioni di fabrica.*
- *Nitidezza: media (nominale)*
- *Espansore contrasto troppo basso.*
- *IModo Install disabilitato.*
- *Formato default e zoom.*

2 USCITA TEMPORANEA DAL SERVICE MODE

- Premere Exit sul telecomando.
- Al menu di uso quotidiano si accede attraverso il pulsante Menu.

- É possibile rientrate nel Menu Field Service attraverso il pulsante Blue.

3 USCIRE DAL SERVICE MODE

telecomando / **Panello controllo TV**
- Andare al punto QUIT nel Modo Field service del Menu principale
- Premere «<»,«OK» o «>» / - Premere «VOL.+»
- Modo TV.

Tasto on/off di
- Funzione Stand-by o «off» con il tasto on/off

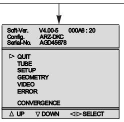
Valori e regolazioni non vengono memorizzati prima di uscire dal Modo service e non vengono scritti nell'NVM

MODO SERVICIO (E)

1 ACCESO AL MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA:PARADA.
- Pulse los botones **PR - y VOL -** y sin soltarlos,pulsar la tecla MARCHA:PARADA.
- Libere los botones **PR - y VOL - .**


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Nota :

En modo servicio:
- *Se ignora la función de bloqueo y se inicializa la función “cerradura ninos”.*
- *Anula todos las horas programadas*
- *La patilla 8 del SCART es ignorada*
- *La detección WSS AV Link, EPG, y Telexto son desactivados.*
- *El apagado automático en caso de ausencia de señal de antena es desactivado.*
- *El contraste,color y brillo son puestos a los valores de fábrica.*
- *la nitidez es puesta al punto medio.*
- *La expansión de contrast al nivel bajo*
- *Modo Instalación es desactivado.*
- *Zoom y formato ignorados.*

2 SALIDA TEMPORAL DEL MODO SERVICIO

- Pulse Salir en el mando a distancia
- Con el botón Menu puede acceder al menú de uso cotidiano.

- Puede entrar al Menú Servicio con el botón azul.

3 SALIDA DEL MODO SERVICIO

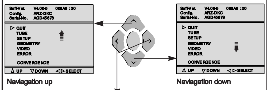
telecomando / **Panel de control TV**
- Vaya al punto QUIT del menú principal de modo Servicio
- Pulse el botón «<»,«OK» o «>» / - Pulse el botón«VOL.+»
- Modo TV.

Tecla on/off de
- Función Stand-by o desconexión (off) con tecla on/off.

Los valores o ajustes no se guardan antes de salir del modo servicio y no se escriben en el NVM

II - NAVIGATION INSIDE THE SERVICE MODE - DEPLACEMENT DANS LE MODE SERVICE NAVIGATION IM SERVICE MODE - OPZIONI NEL SERVICE MODE - BUSQUEDA EN MODO SERVICIO

1 REMOTE CONTROL - TELECOMMANDE - FERNBEDIENUNG TELECOMANDO - MANDO A DISTANCIA

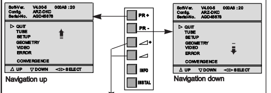

Naviagation up
Naviagation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

- “Change” value
- Wert “ändern”
- “Cambiare“ valore
- “Cambiar” valor

> → VALUE ↗
< → VALUE ↘

2 TV CONTROL PANEL - CLAVIER TV - TASTATUR DES FERNSEHGERÄTS - COMANDI DEL TELEVISORE -


PR +
PR -
INFO
INSTAL
Navigation up
Navigation down

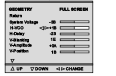
- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

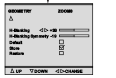
- “Change” value
- Wert “ändern”
- “Cambiare” valore
- “Cambiar” valor

Vol. + → VALUE ↗
Vol. – → VALUE ↘

Changing page - Changement de page
Seitenwechsel - Cambiare Pagina - Cambio de página

End of page Fin de page Am Seitenende Fine della pagina Fin de página	Beginning of Page Début de page Am Seitenanfang Inzio della pagina Comienzo de página


GEOMETRY FULL SCREEN
Return
System Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

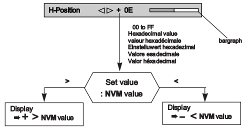

GEOMETRY ZOOM0
△
H-Blanking ◁▷ +3B
H-Blanking Symmetry -19
Default
Store
Restore
△ UP ▽ DOWN ◁▷CHANGE

« ▽ »
Indicates a following page
Signifie qu'une page suit.
Bedeutet, daß eine Seite folgt
Indica una pagina seguente
Indica una página siguiente

« △ »
Indicates a preceding page
Signifie qu'une page précède.
Bedeutet, daß eine Seite vorangeht
Indica una pagina precedente
Indica una página precedente

- The menu turns the page when the cursor reaches the arrow.
- Amener le curseur sur la ligne repérée par« ▽ » ou « △ » pour passer à la page qui précède ou qui suit.
- Cursor nach « ▽ »,« △ » zum Seitenwechsel
- Il cursor su « ▽ »,« △ » cambia pagina.
- Cursor en « ▽ » ,« △ » cambia las páginas

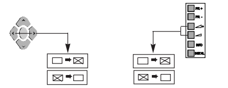
3 DISPLAYING THE VALUE OF THE SETTING - AFFICHAGE DES VALEURS - ANZEIGE DES EINSTELLWERTES VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE - VISUALIZACION DEL VALOR DE AJUSTE


H-Position ◁▷ + 0E
00 to FF
Hexadecimal value
valeur hexadécimale
Einstelluwert hexadezimal
Valore esadecimale
Valor héxadecimal
bargraph
Set value
: NVM value
>
<
Display
➡ + > NVM value
Display
➡ – < NVM value

4 TOGGLE FUNCTIONS - VALIDATION DES FONCTIONS UNSCHALT FUNKTIONEN - FUNZIONI DI COMMUTAZIONE - FUNCION CONMUTACION

To enable a function check (tick) ☒ the box.
Pour valider une fonction cocher ☒ la case correspondante
Zum Implementieren einer Funktion das Kontrollkästchen ☒ aktivieren (ankreuzen)
Per validare una funzione , (vistare) ☒ la casella
Para poner en fucionamiento una función verifique (señale) ☒ la casilla

☒ : Enable function ☐ : Disable function


☐ ➡ ☒
☒ ➡ ☐
☐ ➡ ☒
☒ ➡ ☐
PR +
PR -
INFO
INSTAL

5 STORING VALUES IN MEMORY - MEMORISATION DES VALEURS - SPEICHERN DER WERTE - MEMORIZZARE VALORI - VALORES ALMACENADOS EN LA MEMORIA

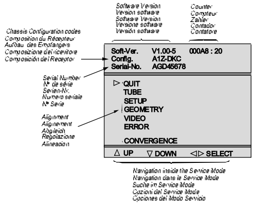
After setting, the values are stored in NVM.
Après réglages les valeurs sont mémorisées en NVM.
Nach dem Abgleich müssen die Werte im NVM gespeichert werden.
Dopo la regolazione i valori vengono memorizzati in NVM.
Después del ajuste, los valores son almacenados en NVM

The box ☐ becomes ☒
During alignment, values are temporarily stored in RAM.
En cours d'alignement les valeurs sont mémorisées temporairement en RAM
Während des Abgleichs werden die Werte vorübergehend im RAM gespeichert
Durante l'allineamento i valori vengono memorizzati provvisoriamente nella RAM
Durante el alineamento, los valores son almacenados temporalmente en RAM

Store ➡	Copies RAM values into NVM Copie la valeur RAM en NVM Kopieren der Werte von RAM nach NVM Copiare i valori RAM in NVM Copiar valores RAM en NVM
Restore ➡	Copies all values from NVM into RAM. Copie toutes les valeurs des données NVM en RAM Kopiert alle NVM-Datenwerte in den RAM Copiare tutti i valori da NVM nella RAM Copia todos los valores de NVM a RAM
ROM Default ➡	All the default values of a page in use are stored in RAM. L'ensemble des valeurs par défaut d'une page courante est chargé en RAM. Sämtliche Standardwerte der aktuellen Seite werden in das RAM geladen. Tutti i valori di default di una pagina in uso vengono memorizzati nella RAM Todos los valores por defecto de la página en curso están almacenados en RAM.

III - LITE-MENU FOR FIELD SERVICE MODE - MENUS DU MODE SERVICE - MENÜS IM SERVICE MODE

1 MAIN MENU - MENU PRINCIPAL - HAUPTMENÜ


Software Version
Version software
Software Version
Versione software
Versión software
Counter
Compteur
Zähler
Contador
Contatore
Chassis Configuration codes
Composition du Récepteur
Aufbau des Empfängers
Composizione del ricevitore
Composición del Receptor
Serial Number
N° de série
Serien-Nr.
Numero seriale
N° Serie
Alignment
Alignement
Abgleich
Regolazione
Alineacion
Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Opciones del Modo Servicio

TV CONFIGURATION - CONFIGURATION DU TV - GERÄTEKONFIGURATION - CONFIGURAZIONE DEL TV - CONFIGURACIÓN DEL TV

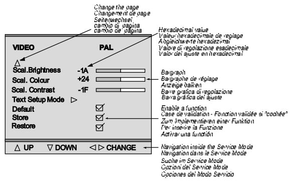
Config. A1Z-DKC

Character 1 : Tube type : «A»= 4/3 , «W» =16/9
Character 2 : Chassis type : «5» = 50Hz, «1»= 100 Hz
Character 3 : Zoom available : «Z»=yes, «-»=not
Character 4 : Ambiant Sensor : «S»= detected, «-»= not
Character 5 : Dolby : «D»=detected, «-»= not
Character 6 : AV Link detected : «K»=IR link detected, «-»= not
Character 7 : Password mode: «C»= Password stored, «-»= not

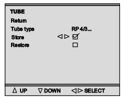
TIME COUNTER - COMPTEUR DE TEMPS - ZÄHLER - CONTATORE - CONTADOR

The counter indicates the number of hours. (0 to 65535) the TV has been operating in hexadecimal notation.
Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.
Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb war. Die Anzeige ist hexadezimal.
Il contatore indica il numero di ore di funzionamento del TV. Puo' contare da 0 a 65535. La visualizzazione è esadecimale.
El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU - SOUS-MENU - UNTERMENÜ


Change the page
Changement de page
Seitenwechsel
cambio di pagina
cambio de pagina
Hexadecimal value
Valeur hexadecimale de reglage
Abgleichwerte hexadezimal
Valore di regolazione esadecimale
Valor del ajuste en hexadecimal
VIDEO PAL
△
Scal.Brightness -1A
Scal. Colour +24
Scal. Contrast -1F
Text Setup Mode ▷
Default ☑
Store ☑
Restore ☑
△ UP ▽ DOWN ◁▷ CHANGE
Bargraph
Bargraphe de réglage
Anzeige balken
Barre grafica di regolazione
Barra gráfica del ajuste
Enable a function
Case de validation - Fonction validée si "cochée"
Zum Implementieren einer Funktion
Per inserire la Funzione
Activar una función
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Opciones del Modo Servicio

ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION



TUBE
Return
Tube type RP 4/3...
Store ◁▷ ☑
Restore ☐
△ UP ▽ DOWN ◁▷ SELECT

TUBE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on projectors front panel.

Tube type

After replacing the NVM, the correct tube type number must be entered . Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list.

Definit le tube exact après changement de NVM. Les nouvelles valeurs de tubes (avec video et géometrie) sont actives de suite. Les paramètres de vidéo et de géométrie sont chargés en NVM lorsque STORE est sélectionné. Voir liste ci-dessous.

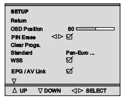
Nach Tausch des NVM den Bildröhrentyp (6 Ziffern) auswählen. Die neuen Geometrie- und Video-Defaultwerte werden sofort aktiv. Variable Geometrie- und Videowerte werden durch Speichern mit "STORE" ins NVM geschrieben. Bildrohrauflistung : siehe unten.

Scegliere il tubo appropriato dopo aver sostituito la NVM; i 6 caratteri che indicano il nuovo tipo di tubo, richiamano i valori video e geometria di default. I parametri per video e geometria vengono caricati nella NVM

Definir el tubo correcto después de haber cambiado el NVM. 6 caracteres. Los nuevos valores de tipo de tubo (con el video y la geometría por defecto) se activan inmediatamente. Los parámetros variables de geometría y video se graban en el NVM al seleccionar la función Store. Vea más abajo la lista de tubos.

List :
4/3; 16/9.
- Tube type RP 4/3 : RP C19 4/3
- Tube type RP 16/9 : RP C19 16/9

→ After setting → Store (+) ☑



SETUP
Return
OSD Position 80
PIN Erase ◁▷ ☑
Clear Progs.
Standard Pan-Euro ...
WSS ☑
EPG / AV Link ☑
▽
△ UP ▽ DOWN ◁▷ SELECT

SETUP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

OSD Position
Adjusts the position of all Megatext OSD..

PIN Erase Erases all PINs.
☑ PIN active ☐ No PIN active
Selection : Long press:
Press </>/OK: RCU or Vol. +/- :proj.front panel
Automatically stored.

Clear Prog.

Clears all programms stored in memory and resets all Picture and Sound settings to the factory defaults. The AUTO INSTALL (out of factory) mode can be initialised by a long press (>2.5s.) of the selection button.

Efface tous les programmes mémorisés. valeurs SON et IMAGES: valeurs usines. Pour sortir des valeurs usine : Selection : Long press (2,5s) sur la touche de sélection </>.

Löscht alle Programmplätze und setzt alle Bild- und Toneinstellungen auf Fabrikwerte zurück. Der AUTO-INSTALL-Modus kann durch einen langen Knopfdruck (>2,5s) initialisiert werden.

Clear Prog.
Cancella tutti i programmi in memoria e regola i Valori analogici SUONO IMMAGINE: ai valli di fabbrica. Riportare il TV al modo Selezione: pressione prolungata: 2,5 sec.

Programa de borrado.
Borra todos los programas almacenados en la memoria. Valores analógicos de IMAGEN y SONIDO: valores de fábrica. Regreso a la TV para "salir del modo fábrica". Selección: Presión larga igual a 2,5 s.

Standard "Pan-Euro" or "I".
BG PAL SECAM,L SECAM (France),
DKK' SECAM,NTSC M,I PAL (UK/IRELAND)

WSS

Automatic detection of DOLBY surround sound and 16/9 format pictures via Teletext line number 23 is valid on all programmes.

Détection automatique du son surround DOLBY et du format 16/9 via la ligne 23 du Télétexte. Valide pour tous programmes.

WSS (nur bei 16:9 oder Dolby)
Auswertung der Zeile 23 zur automatischen Format-und Dolbyumschaltung.

Identificazione "auto-surround" e "format" via televideo alla riga 23. La selezione di WSS Processing vale per tutti i programmi.

Detección "auto-surround" y "format" a través de la línea 23 de Teletext. La selección del procesamiento WSS es válida para todos los programas.

☑ Detection enable ☐ Detection disable

EPG / AV Link

Enables or disables the option to decode and display EPG program data.

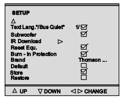
Validation ou inhibition du décodage/affichage des données du programme EPG.

Zulassen oder Nichtzulassen von EPG.

Abilita o disabilita l'opzione di decodifica e visualizzazione dati programmi EPG.

Valida o inhibe la opción de descodificación y visualización de datos del programa EPG.

☑ Available ☐ Not available



SETUP
△
Text Lang.*/Bus Quiet* 1/☑
Subwoofer ☑
IR Download ▷
Reset Equ. ☑
Burn - In Protection ☑
Brand Thomson ...
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

*according to model

SETUP

Text. Lang. Teletext language :

0	1	2	3
English	Polish	English(US)	English
German	German	German	German
Swedish	Swedish	Swedish	Swedish
Italian	Italian	Italian	Italian
French	French	French	French
Portug.	Serbocroat	Portug.	Portug.
Czech/Slov.	Czech/Slov.	Czech/Slov.	Turkish.
-	Rumanian	English(UK).	-

Bus Quiet

In Bus Quiet, the NVM can be read, modified and reprogrammed by means of a NVM Programmer.
To access "Bus Quiet" : Long press ">".
The TV should remain in "Bus Quiet" mode until either Exit, Left, Right, Up,Down or Standby keys on the RCU or local keyboard are pressed; at which point the TV should carry out a warmstart in order to prevent differences between the NVM and RAM contents.
After returning from Bus Quiet, the software checks the NVM content.
If it is not valid, the software perform a new default writing of the NVM content.

En mode Bus Quiet la NVM peut être lue, modifiée et reprogrammée.
Accès au mode Bus Quiet :
Longue pression ">".
Utiliser l'une des touches Exit, Gauche, Droite Haut, Bas, standby ou une des touches du clavier pour sortir le téléviseur du mode Bus Quiet.
A partir de ce point de sortie le démarrage du téléviseur s'effectue à chaud pour éviter toute différence des contenus RAM et NVM.
En sortie de mode bus quiet, le logiciel contrôle le contenu de la NVM.
S'il n'est pas correct le logiciel exécute une nouvelle écriture par défaut de celle-ci.

Im "Bus Quiet"-Modus kann der Inhalt des NVM mittels eines externen NVM-Programmiergerätes ausgelesen, geändert oder neu programmiert werden. "Bus Quiet" wird einem längeren Druck auf ">" aktiviert. Das Gerät bleibt solange im "Bus Quiet" - Mode, bis durch Druck auf die EXIT-, LINKS-, RECHTS-, HOCH-, RUNTER- oder STANDBY-Taste (am Gerät oder auf der Fernbedienung) ein Warmstart des Gerätes veranlaßt wird, um unterschiedliche Daten in RAM und NVM zu vermeiden.
Es folgt ein Software-Check des NVM-Inhaltes.
Sollte dieser nicht gültig sein, wird der Inhalt mit Default-Werten überschrieben.

In Modo Bus Quiet, la memoria NVM può essere letta, modificata o riprogrammata.
Per accedere al modo Bus Quiet premere a lungo il tasto ">".
Il TV dovrebbe rimanere in modo Bus Quiet fino a che vengono premuti i tasti Exit, o Destro Sinistro, Su o Giù o Standby dal telecomando o dalla tastiera locale; a questo punto il TV dovrebbe ripartire per evitare interferenze tra i contenuti della memoria NVM e della RAM.
All'uscita dal modo Bus Quiet, il software controlla il contenuto della memoria NVM. Se tale contenuto non è valido, il software provvede a una nuova programmazione della NVM con l'inserimento dei dati di default.

En bus quieto, la NVM puede ser leída, modificada y reprogramada.
Acceso a bus quieto : Larga presión en ">"
El TV permanecerá en bus quieto hasta que se pulse cualquiera de las teclas siguientes: Exit, "<", "Y", "/", ">"o Standby del telemando o del teclado.
En este momento el TV arrancará para evitar cualquier diferencia entre los contenidos de la RAM y NVM.
Al salir del modo bus quieto, el software comprueba el contenido de la NVM.
Si no coincide, el software ejecuta la escritura de los datos en la NVM.

☑ Bus Quiet enable ☐ Bus Quiet disable

SETUP

Subwoofer

Enable the subwoofer on equiped set.

Validation du Subwoofer sur les appareils équipés .

Einschalten des Subwoofers (wenn vorhanden).

Abilita il subwoofer negli apparecchi equipaggiati.

Validaciónde que existe el subwoofer.

☑ Subwoofer enable ☐ Subwoofer disable

IR Download

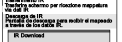
Download screen for receiving mapping via IR data.

Ecran de chargement pour réception "mapping" via IR data

Laden des Programmschemas per AV-Link

Trasferimento IR
Trasferire schermo per ricezione mappatura via dati IR

Descarga de IR
Pantalla de descarga para recibir el mapeado a través de los datos IR.



IR Download
Programme 00
Return / Abort ◁
IR Download active

"Programme 00" : function is active or finished.
Return / Abort : To exit/Abort the menu press "left" arrow key or Volume - key of keyboard.
All other IR commands have no response.

"Programme 00" : Fonction active ou finie.
Return / Abort : Pour sortir du menu appuyer sur la touche "gauche" ou "Volume -" du clavier.
Les autres commandes IR sont sans réponse;

"Programme00":Funktion ist aktiv oder beendet "Return/Abort": Beenden oder Abbruch der Funktion durch Drücken der linken Pfeiltaste oder "Lautstärke-" am Gerät.Alle anderen Tasten haben keine Funktion.

Programma 00: la funzione è attiva o finita.
Return/Abort: per uscire dal menu, premere il tasto "sinistra" del telecomando o il tasto Volume- della tastiera.
Tutti gli altri comandi IR sono senza risposta.

"Programme00" : función activa o terminada.
"Return / Abort" : para salir / abortar, pulsar la tecla "flechaizquierda" o la tecla "volumen -" del teclado.
Todos los demás comandos IR son inoperantes

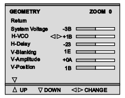
Reset Equ.	Reset Equaliser Not available Non disponible

Burn-in Protection

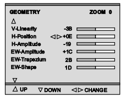
- To decrease the risk of marking the screen when displaying static images, the picture is continually displaced over a period of 2 hours by approximately 5 mm.
- Diminue le risque de marquage de l'écran sur image fixe par un déplacement de celle-ci de 5 mm toutes les 2h.et changement de programme.
- Um ein Einbrennen unbewegter Bilder in die Leuchtschicht zu verhindern, wird das Bild nach jedem Programmwechsel und zeitgesteuert alle 2 Stunden um etwa 5mm verschoben.
- Non visualizzare un'immagine fissa per più di due ore, nel caso, cambiare programma.
- Protege la pantalla contra marcas con imagen fija desplazándola 5 mm cada 2 horas y cambiando el programa

☑ Available ☐ Not available

Brand*
Set the "Brand": Thomson, Telefunken, Other
Factory adjusted
Reserve au reglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas
Press </>: remote control; Vol. +/- : TV keyb.



GEOMETRY ZOOM 0
Return
System Voltage -3B
H-VCO ◁▷ +1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE



GEOMETRY ZOOM 0
△
V-Linearity -3B
H-Position ◁▷ +0E
H-Amplitude -19
EW-Amplitude +1C
EW-Trapezium 2B
EW-Shape 1D
▽
△ UP ▽ DOWN ◁▷ CHANGE

Test Bar pattern used : 4/3 with geometric circle. Adjust separate for 4/3 and 16/9 format. See annexed . Colour standard or RGB is autodetected and displayed opposite the displayed opposite the menu title.

GEOMETRY

Return

Closes the sub-menu and returns to the "Main Service Menu"
Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

System Voltage
Adjustment of the main system voltage is only possible via the local keyboard Vol +/- .
- Adjust Usys = 134V
(Adjustments: Usys)

H-VCO Horizontal - VCO Oscillator.

Adjust the value of H-VCO until the speed of the unsynchronised picture becomes stable. (i.e minimum roll)

Agir sur H-VCO pour obtenir une image la plus proche de la synchronisation

H_VCO auf Schwebung abgleichen.

Regolare l'H_VCO finché l'immagine non sincronizzata non avrà raggiunto la velocità minima.

Ajuste H_VCO hasta que la imagen no sincronizada alcance su velocidad más baja.

default value = 0FH
Press </>: remote control; Vol. +/- : RP keyb.

H-Delay	Horizontal delay Use "+" and "-" to adapt the image

V-Blanking

1-Adjust V-Amp. for a 107% over scanned picture.
2-Reduce V-Blanking for visible lines top and bottom of screen.
3-Increase step by step V-Blank. until at the bottom and the cut- off lines on the top of the screen disappear.
4- Increase one more step
5-Next adjust the V-Amp. and V-Position

1-V-amp. amplitude verticale suffisante (>7% overscan)
2- Réduire V-blanking:visible en haut et bas.
3- Agir étape par étape jusqu'à disparition du blanking en bas d'image et des lignes de cut-off en haut d'écran
4- Augmenter d'une valeur.
5- Faire un réglage fin de V-amp. et V-position

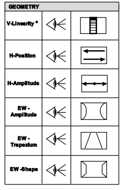
1- Voreinstellung der V-amp auf: >7% Überschreibung.
2- Reduzieren Sie V-Blanking soweit bis die ersten geschriebenen Zeilen am oberen Bildrand sichtbar werden.
3- Erhöhen Sie V-Blanking Schritt für Schritt bis die Cut-Off Meßzeilen gerade am oberen Bildrand verschwinden.
4- Erhöhen Sie V-Blanking um eine Stufe.
5- Feineinstellung von V-Amp und V-Position.

1- Ampiezza verticale: grande a sufficiensa (7% di sovrascanzioni)
2- Riduzzi il V-blanking per visualizzare le linee : alto e in basso dello schermo.
3- Aumentare passo/passo: finchè le linee di cut off nella parte alta dello schermo scompaiono.
4- Aumentare ancora di un passo
5- Regolare con precisione l'ampiezza e la posizione verticali.

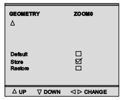
1- Amplitud V: suficientemente grande (7% de sobreexploración)
2- Reducir el borrado V: visible en las partes superior e inferior.
3- Aumentar el paso a paso: el borrado en la parte inferior y las líneas de cut-off en la parte superior desaparecen.
4- Aumentar de otro paso.
5- Ajustar finamente la amplitud V y la posición V.

V-Amplitude	Inference (p. 20)
V-Position	Vertical Power Stage zero adjust. (Adjustments: refer to RPC19 Service Manual Part : 350 845 90)

GEOMETRY



V-Linearity *
H-Position
H-Amplitude
EW - Amplitude
EW - Trapezium
EW -Shape



GEOMETRY ZOOM0
△
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

page 3

→ After setting → Store (+) ☑

Default Values :

- U Sys.	: 98	- V-Linearity *	: 60
- H-VCO	: 80	- H-Position	: 78
- H-Delay	: 80	- H-Amplitude	: 78
- V-Blanking	: A0	- EW-Amplitude	: 8C
- V-Amplitude	: 4E	- EW-Trapezium	: 78
- V-Position	: 80	- EW-Shape	: 00

* - V-Linearity : 60= Fix value. Not to change.

IMPORTANT

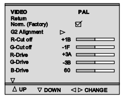
Factory setting values are indicated on a label inside the optical block housing. These should be used in preference to the default values.

Les valeurs de réglages usines sont indiquées sur une étiquette située à l'intérieur du caisson bloc-optique.Elles sont à utiliser de préférences aux valeurs par défaut

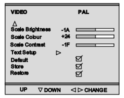
Die Fabrik-Einstellwerte sind auf einem Aufkleber im Inneren des Gehäuses des Optischen Blocks angebracht. Diese sollten den Defaultwerten vorgezogen werden.

I valori di regolazione di fabbrica vengono indicati su una etichetta collocata all'interno del contenitore del blocco ottico. Questi valori devono essere utilizzati di preferenza ai valori di default.

Los valores de los ajustes de fábrica se indican en una etiqueta situada en el interior de la cubierta del bloque óptico. Son de utilización preferente a los valores por defecto



VIDEO PAL
Return
Norm. (Factory) ☑
G2 Alignment ▷
R-Cut off +1B
G-Cut off -1F
R-Drive +3A
G-Drive -3B
B-Drive 60
▽
△ UP ▽ DOWN ◁▷ CHANGE



VIDEO PAL
△
Scale Brightness -1A
Scale Colour +24
Scale Contrast -1F
Text Setup ▷
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

VIDEO PAL

Return

Closes the sub-menu and returns to the "Main Service Menu"
Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

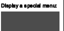
Norm. (Factory)

Recalls the factory settings for colour, brightness, contrast and sharpness and sets contrast expand to "low".

☑ Factory settings recalled
☐ User settings kept.

G2 Alignment

Display a special menu:



Return., R=8B G=60 B=71

RGB cut-off counters

Initially set R_Cut-off and G_Cut-off to 80H.

Adjust the values with the 3 potentiometer on CRT boards to: R=28 G=28 B=28

To return video submenu:
Press </>/OK: remote control;Vol. +/- :RP keyb.
Select"Restore" to restore the cut-off values.

R-Cut off*		☼+◑+◐=nom. Grey scale test pattern white =100% grey
G-Cut off*		
R - Drive		☼+◑+◐=nom. Grey scale test pattern white =100% white
G - Drive		
B - Drive		

Note :
* adjust separate for PAL/NTSC/SECAM and RGB/AV

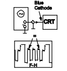
→ After setting → Store (+) ☑

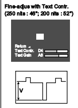
Default Values :

- R-Cut off	: 70	- B-Drive	: 64
- G-Cut off	: B8	- Scale bright.	: 90
- R-Drive	: 54	- Scale colour	: 94
- G-Drive	: 94	- Scale contrast	: BC

VIDEO PAL

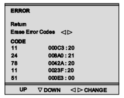
Scale Brightness	☼+◑ = 50% ◐ = 100% Grey scale test pattern white =100% black
Scale* Colour	☼+◑+◐=nom. PAL (then SECAM +RGB) 75% Colour bar test pattern via RF.
Scale Contrast	Keep factory settings or default value
Text Set-up Mode	☼+◑+◐=nom. Set Text Contr. to max. ! Adjust Text Gain to get a light output of just V=60Vpp CRT B. Pin 8 Fine-adjus with Text Contr. (250 nits : 46"; 200 nits : 52")





CRT B. Pin 8

→ After setting → Store (+) ☑



ERROR
Return
Erase Error Codes ◁▷
CODE
11 000C3 : 20
24 008A0 : 21
78 0042A : 20
11 0023F : 20
51 000E3 : 00
UP ▽ DOWN ◁▷ CHANGE

ERROR CODE

Return

Closes the sub-menu and returns to the "Main Service Menu"
Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

Erase Error Codes	Clears all error codes stored in the NVM. Press and hold </>/OK buttons on the RCU or the VOL+/VOL- keys on the projector for more than 5s. (long press).
CODE	LED Error Codes

The last five error codes are stored and displayed as they occured in real time, the most recent error code is displayed on the top line. A repeated top line error code has its real time count updated. There are 27 different error codes, which are signaled by the TV's Standby LED, ranging in value from 11 to 49 hex. The error code is displayed as two separate digits separated by a suitable pause, this is repeated until the either the TV fixes the fault or the TV is repaired.
For example Error-code : 23 will be displayed thus :
2 flashes and a short pause
3 flashes and a long pause
....
List of Errors Code : see table

Mémorise les cinq derniers codes erreurs et affiche en haut d'écran les plus récents.
27 codes erreurs différents sont signalés par deux digits selon une séquence spécifique
Exemple :
Code erreur : 23 affiché
2 flashes, courte pause
3 flashes : longue pause
....
Voir dcontre la liste des codes erreurs

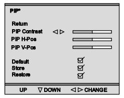
Zeigt die letzen 5 Fehlercodes mit der Laufzeit an.
Der zuletzt aufgetretene Fehler steht an erster Stelle.
Sollte ein Fehler wiederholt auftreten wird nur die Laufzeit aktualisiert.
Die Fehlercodes können im Menü Error Code angezeigt werden oder über die Kontroll LED angezeigt werden;

Beispiel für die Anzeige über die Kontrol LED:

Fehlercode 23 :
Zweimalige Blinken der LED, kurze Pause.
Dreimalige Blinken der LED, lange Pause.
Auflistung der Fehlercodes : siehe Liste

Memorizza gli ultimi cinque codici d'errore, tra cui il più recente viene visualizzato sulla prima riga, aggiornando la durata di esecuzione del codice stesso.
Dal Led del TV vengono segnalati 27 codici d'errore diversi, numerati da 11 a 44. Il codice d'errore è indicato da due cifre separate da un intervallo di tempo, che verrà ripetuto fino a quando il TV non sarà stato riparato o resettato.
Ad esempio:
Il codice d'errore 23 visualizzerà:
2 segnali luminosi con pausa breve
una pausa lunga
3 segnali luminosi con pausa breve
Per la lista dei codici d'errore, consultare la tabella.

Almacene los últimos cinco códigos de error cuando cada uno ocurre (gracias al contador de tiempo de ejecución). El error más reciente se visualiza en la parte superior. Una repetición del código de error en la parte superior de la lista solamente actualiza el tiempo de ejecución. El indicador TV LED indica 27 códigos de error diferentes: de 11 a 44. El código de error se señala en forma de dos dígitos separados con una pausa apropiada entre los dos y se repetirá hasta que repare el TV o él se repara a sí mismo.
Por ejemplo,
Se va visualizar el código de error 23:
2 parpadeos, una pausa corta;
3 parpadeos, una pausa larga.
Para la Lista de códigos de error, consulte la tabla.



PIP*
Return
PIP Contrast ◁▷
PIP H-Pos
PIP V-Pos
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

* only PIP models

PIP

Return

Closes the sub-menu and returns to the "Main Service Menu"
Retourne au menu principal.

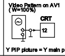
Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

PIP Contrast ☼+◑+◐ = 50%
Video Pattern on AV1 (W=100%)



Y PIP picture = Y main picture

PIP H-Pos - PIP V-Pos

Factory adjustments.These adjustments are optimized by software.
Used only if necessary.

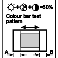
Réglages usines. Ces réglages sont optimisés par le software.
Ils ne sont à utiliser que si nécessaire.

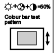
Fabrikeinstellungen. Der Abgleich wurde per Software optimiert.
Nur wenn notwendig nachgleichen.

Reggolazioni di fabbrica. Tali regolazioni vengono ottimizzati dal software. Da utilizzare e solo se necessario

Ajustes de fábrica. Estos ajustes están optimizados por software.
Utilizar sólo en caso necesario.

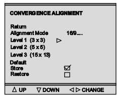
PIP H -Pos	☼+◑+◐=50% Colour bar test pattern
PIP V -Pos	☼+◑+◐=50% Colour bar test pattern





(*) Center PIP image in the frame
Centrer l'image PIP
PIP -bild im fenster testbilds
Centrare l'immagine PIP sullo schermo
Centre la imagen PIP en el marco

→ After setting → Store (+) ☑



CONVERGENCE ALIGNMENT
Return
Alignment Mode 16/9....
Level 1 (3 x 3) ▷
Level 2 (5 x 5)
Level 3 (15 x 13)
Default
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

CONVERGENCE ALIGNMENT

* Please refer to RPC19 100Hz 4/3 Service Manual Part N° 350 845 90 p.29-35

* Se référer à la documentation technique de base RPC19 100Hz 4/3 code : 350 845 90. p.29-35

* Bitte schlagen Sie im RPC19 100 Hz 4/3 Service Manual 350 845 90 nach S. 29-35

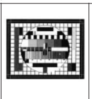
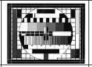
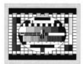
* Consultare la documentazione tecnica del telaio RPC19 100 Hz 4/3. codice: 350 845 90. p.29-35.

* Refiérase a la documentación básica del RPC19 100 Hz 4/3. código : 350 845 90 p. 29-35

GEOMETRY MODE ALIGNMENT

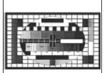
4/3 picture tube

Signal : 4/3 test pattern

4 / 3 standard mode zoom 0		Overscan V=107% , H=107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity 3- Adjust Horizontal Position and Horizontal Amplitude 4-Adjust EW Amplitude ,EW Shape and Trapezium
<4/3> zoom 1		Overscan V=120% , H=120%
16 / 9 standard mode		Adjust the vertical height until V = 80%

16/9 picture tube

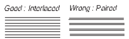
Signal : 4/3 test pattern

16 / 9 standard mode zoom 0		100Hz Version : overscan V=107%, H =107% 1- Adjust Vertical Position and Vertical Amplitude 2- Adjust Vertical Blanking and linearity 3- Adjust Horizontal position and Horizontal Amplitude 4-Adjust EW Amplitude ,EW Shape and Trapezium

Note : GEOMETRY : V-Amplitude

Vertical Interlace - Entrelacement Vertical - Vertikal Interlace Interlaccio Verticale - Entrelazado vertical

- Check the vertical Interlace*.
- Contrôler l'entrelacement vertical*.
- Überprüfen Sie das vertikale Interlacing ("Verschachtelung") der Zeilen*.
- Controllare l'interlaccio verticale*.
- Compruebe El entralazado vertical*.



If the interlace is poor, adjust the **VAMP.** by 1/2 steps (+ or -) to achieve the best interlace.

Si l'entrelacement n'est pas correct agir sur **V AMP** de une ou deux valeurs pour obtenir un entrelacement correct.

Bei einer Paarigkeit der Zeilen verstellen Sie **V AMP** um 1 oder 2 Stufen (+ oder -)

Si el entrelazado no es bueno, mueva **VAMP** en 1 o 2 pasos (+ o -) para conseguir la mejor.

Se l'interlaccio non e' idoneo, correggere **VAMP** di 1 o 2 fasi (+/-) per ottenere l'interlaccio migliore.

* To check in 4:3 and in 16:9 - Contrôler en 4:3 et 16:9 - Kontrollieren Sie im 4:3 und im 16:9 Format .- Controllare nel formato 4:3 e 16:9. - Revisar en 4:3 y 16:9

ERROR CODES

GB

11 1st Audio_MSP doesn't answer
12 2nd Audio-MSP doesn't answer
13 Audio-DSP doesn't answer
14 Video IC STV2161/2 doesn't answer
15 Chroma IC 2151/9143 doesn't answer
16 Upconverter DMU0 doesn't answer
17 Audio (or Dolby) module not detected
18 SCART IC TEA6415C doesn't answer
19 Tuner CTT 5000 doesn't answer
21 I2C Bus1 data line held low
22 I2C Bus2 data line held low
23 I2C Bus1 clock line held low
24 I2C Bus2 clock line held low
25 Switched 5V not available
26 Tube doesn't get warm in time
27 Deflection detects >3 times protection (problem detected on "breathing" line)
29 DRAM memory of Megatext defect
31 RAM is full
32 A software-timer has been requested, but is not available yet
33 The PSI chip (STV2165) doesn't answer
34 The NVM (X24C32) chip doesnt answer
35 13V not available
36 Wrong addr. NVRAM passed to the bus-handler
37 Unexpected level on NMI (interrupt) line found (possible cause : tube flashover)
38 M3LBus for Megatext is blocked
39 Megatext (SDA5273) doesn't answer
41 Bus1 Data Line not recoverable
42 bus2 Data Line not recoverable
43 MCU (Motion Mastering Up-Converter) doesn't answer
44 Convergence IC (STV2040) doesn't answer
45 Defect "Video Module" is detected
46 "Default" NVRAM of DCU doesn't answer
47 Test Pattern chip of DCU defect
48 Test Pattern NVRAM convergence chip defect
49 Convergence module doesn't answer anymore
51 PIP Module doesn't answer.
52 The Teletext module is not conform .

F

11 Processeur Audio MSP ne répond plus
12 Deuxième MSP ne répond plus (Dolby)
13 Audio-DSP ne répond plus (produit Dolby)
14 Video-IC STV2161 ou 2162 ne répond plus
15 Chroma-IC STV2151 ou TDA9143 ne répond plus
16 Convertisseur de frequence d'image digital DMU0 (Intelligent Mastering) ne répond plus
17 Module son (ou Dolby) n'est pas détecté
18 Commutateur SCART TEA6415C ne répond plus
19 Tuner CTT 5000 ne répond plus
21 I2C-bus 1 data bloqué au niveau bas
22 I2C-bus 2 data bloqué au niveau bas
23 I2C-bus 1 clock bloqué au niveau bas
24 I2C-bus 2 clock bloqué au niveau bas
25 Le "5V commuté" n'est pas disponible
26 Tube ne chauffe pas a temps
27 Protection base de temps active plus de trois fois (problème détecté sur la ligne "breathing")
29 Mémoire (DRAM) du Megatext est en panne
31 Plus de place en RAM
32 Requète logiciel-timer demandée mais pas encore disponible
33 STV 2165 (PSI 100Hz) ne répond plus
34 NVM (mémoire) X24C32 ne répond plus
35 +13V n'est pas disponible
36 Adresse NVRAM inconnue
37 Problème détecté sur la ligne "interrupt" pendant le démarrage ou le fonctionnement du TV. Possibilité: "arking"?
38 Bus M3L pour Megatext est bloqué
39 Megatext (SDA5273) ne répond plus
41 I2C-bus 1 data reste bloqué
42 I2C-bus 2 data reste bloqué
43 MCU (convertisseur de frequence d'image digital: Motion Mastering) ne répond plus
44 Le CI Convergence (STV2040) ne répond plus
45 "Vidéo Module" erroné détecté
46 La NVRAM "Default" de la platine de convergence ne répond plus
47 Test Pattern du CI de Convergence erroné
48 Test Pattern des NVRAM de Convergence erroné
49 La platine de Convergence ne répond plus.
51 Le module PIP ne répond plus.
52 Le Module Text (DVT) n'est pas le bon.

D

11 Audio MSP Prozessor antwortet nicht.
12 Zweiter Audio MSP Prozessor antwortet nicht.(Dolby)
13 Audio DSP Prozessor antwortet nicht. (Dolby)
14 IC STV2161/62 antwortet nicht
15 IC STV2151 / TDA9143 antwortet nicht
16 DMU0 Upconverter (Videomodul) antwortet nicht
17 Audio- oder Dolby-Modul nicht erkannt
18 TEA6415C antwortet nicht (SCART-Schalter)
19 Tuner CTT5000 antwortet nicht
21 I2C Bus1 data line ist auf low
22 I2C Bus2 data line ist auf low
23 I2C Bus1 clock line ist auf low
24 I2C Bus2 clock line ist auf low
25 Geschaltete 5V nicht vorhanden
26 Röhre wird nicht rechtzeitig warm
27 Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29 DRAM des Megatext defekt
31 RAM antwortet nicht
32 Ein software-timer wurde angefordert, ist aber noch nicht bereit
33 STV 2165 (PSI 100Hz) antwortet nicht
34 NVM Chip antwortet nicht (X24C32)
35 +13V nicht vorhanden
36 NVM adresse nicht gefunden
37 Unerwarteter Zustand an NMI (interrupt) line gefunden. (Mögliche Ursache = Röhren-Überschlag")
38 M3L Bus des Megatext blockiert
39 Megatext (SDA 5273) antwortet nicht
41 Bus1 (data line) nicht möglich zu reaktivieren
42 Bus2 (data line) nicht möglich zu reaktivieren
43 MCU (Motion Mastering Up-Converter) antwortet nicht
44 Konvergenz IC (STV2040) antwortet
45 falsches Videomodul (falscher MCU)
46 NVRAM für Konvergenz antwortet nicht
47 Bildmuster im Konvergenz-IC ist defekt
48 Bildmuster aus dem NVRAM ist defekt
49 Bildrohrtyp "R" ist eigestellt, aber kein Konvergenz-IC gefunden
51 PIP antwortet nicht
52 Falsches Videotextmodul.

I

11 Il primo IC Audio MSP non risponde
12 Il secondo IC Audio MSP non risponde
13 L'integrato Audio DSP non risponde
14 L' IC 2161/2 non risponde
15 L'IC 2151/9143 non risponde
16 Il convertitore non risponde
17 Il Modulo Audio non viene identificato
18 Il TEA6415C non risponde
19 Il sintonizzatore non risponde
21 Linea data I2C bus 1 forzata bassa
22 Linea data I2C bus 2 forzata bassa
23 Linea clock I2C bus 1 forzata bassa
24 Linea clock I2C bus 2 forzata bassa
25 La tensione 5V commutati non disponibile
26 Il tubo non raggiunge la corretta temperatura nel tempo stabilito
27 Per 3 volte, la deflessione ha rilevato una protezione (problema riscontrato dalle linee "breathing")
29 Difetto alla DRAM di Megatext
31 La RAM è satura
32 E' stato richiesto un software-timer, ma non é ancora disponibile
33 Il chip PSI non risponde
34 Il chip NVM non risponde
35 13V non disponibile
36 E' stato trasmesso al bus un indirizzo errato della NVRAM
37 Livello imprevisto sulla linea NMI
38 Bus M3L per Megatext bloccato
39 Megatext non risponde
41 Bus 1 (linea dati) non ripristinabile
42 Bus 2 (linea dati) non ripristinabile
43 MCU non risponde
44 Convergenza IC (STV2040) non risponde
45 rivelato Modulo Video difettoso
46 "Default" NVRAM di DCU non risponde
47 Integrato generatore di test DCU difettoso
48 Integrato generatore di test NVRAM difettoso
49 Il modulo convergenza non risponde
51 Il Modulo PIP non viene identificato
52 Il modulo Televideo non è conforme

E

11 Procesador de audio MSP no responde
12 Segundo MSP no responde (Dolby)
13 Audio DSP no responde
14 Cir. integrado de video STV2161 ó 2162 no responde
15 Cir. integrado croma ST2151 ó TDA9143 no responde
16 Convertidor de frecuencia de imagen digital DMU0 (Mastering Inteligente) no responde
17 Módulo de sonido (o Dolby) no se detecta
18 Conmutador Scart (TEA6415C) no responde
19 Tuner CTT 5000 no responde
21 Data 1 del bus I2C permanece en bajo
22 Data 2 del bus I2C permanece en bajo
23 Clock 1 del bus I2C permanece en bajo
24 Clock 2 del bus I2C permanece en bajo
25 No se dispone de los "5v conmutados"
26 El tubo tarda en calentarse
27 La protección de la deflexión actúa mas de 3 veces (el problema se detecta en la línea de "breathing")
29 La memoria DRAM del Megatext está defectuosa
31 RAM está llena
32 Un timer-software ha sido solicitado, pero no está disponible
33 El chip STV2161 (PSI 100Hz) no responde
34 La memoria no volátil X24C32 no responde
35 No están disponibles los + 13 v.
36 Dirección de la NVRAM incorrecta
37 Problema detectado en la línea "interrupt" durante el arranque o el funcionamiento del TV. Posibilidad de chispazos en muy alta?
38 El bus M3L para el Megatext está bloqueado
39 Megatext (SDA5273) no responde
41 Data 1 del bus I2C permanece boqueado
42 Data 2 del bus I2C permanece bloqueado
43 MCU (convertidor de frecuencia de imagen digital: Motion Mastering) no responde
44 Cir. integrado de covergencia (STV2040) no responde
45 Fallo detectado en el módulo de Video
46 Fallo en NVRAM o DCU no responde
47 Fallo en c.i. de mira o DCU
48 Fallo en c.i. NVRAM de convergencias
49 El módulo de convergencias no responde
51 El módulo PIP no responde
52 El módulo Teletexto no es conforme

GEOMETRIE / CONVERGENCE ADJUSTMENT - GEOMETRIE / REGLAGES DES CONVERGENCES / GEOMETRIE / KONVERGENZ ABGLEICH - GEOMETRIA / REGOLAZIONE CONVERGENZA - GEOMETRIA / AJUSTE DE CONVERGENCIA

ADJUSTMENTS LEVELS

For every point on the screen, each of the three beams has a specific correction possibility in both horizontal and vertical planes. To achieve this, three levels of adjustment are available in the Service Mode. The unit is also equipped with an alignment grid pattern generator incorporated on the convergence circuit board.

Trois niveaux de réglages sont accessibles dans le mode service et permettent à partir d'une mire de quadrillage générée par les circuits de convergence d'apporter une correction horizontale et verticale aux trois faisceaux de couleur.

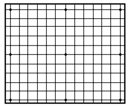
Für jeden Punkt des Bildschirmes und für jeden der drei Katodenstrahlen ist eine spezielle Korrektur sowohl horizontal als auch vertikal, möglich. Im Service-Mode sind drei Ebenen (Level) für den Abgleich der Konvergenz verfügbar.
Das Gittertesbild wird von der Konvergenzschaltung erzeugt.

Per ogni punto dello schermo, ognuno dei tre raggi ha una specifica possibilità di correzione in entrambi i piani orizzontale e verticale. A questo scopo, sono disponibili tre livelli di regolazione in Service Mode. L'unità, inoltre, dispone di un generatore di griglia per l'allineamento, incorporato sulla piastra convergenza.

Tres niveles de ajustes están disponibles en Modo Servicio y permiten a partir de una mira de cuadrícula generada por los circuitos de convergencia, efectuar correcciones especificas en los planos horizontal y vertical para cada uno de los tres haces.

LEVEL 1

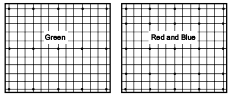
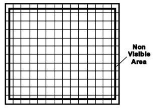
9 points for Green and Blue



3 X 3 points

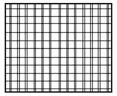
Factory adjusts reserved
Réservé aux réglages Usines
Fabrikeinstellungen
Regolazioni riservate alla fabrica
Ajustes reservados para fábrica

⚠ *MUST NOT BE USED*
NE DOIT PAS ETRE UTILISE
DÜRFEN NICHT VERÄNDERT WERDEN
NO DEVE ESSERE USATO
NO DEBE SER USADO

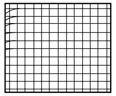
LEVEL 2	LEVEL 3
Large and general corrections *Corrections générales étendues* *Grundeinstellungen* *Correzioni generali estese* *Correcciones generales y extendidas*	*Small local corrections* *Petites corrections locales* *Feineinstellungen* *Piccole correzioni locali* *Pequeñas correcciones locales*
15 or 25 points  3 X 5 points 5 X 5 points	195 points for Green, Red , Blue 

DESCRIPTION OF POSSIBLE CONVERGENCE PROBLEMS

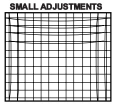
RED AND BLUE PICTURE SHIFTED



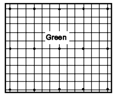
BORDERS OR SMALL AREAS ARE VERY POORLY ALIGNED



SMALL ADJUSTMENTS

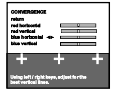


GREEN GEOMETRY IS POORLY ALIGNED



RED AND BLUE PICTURE SHIFTED (GB)

Static Adjustments
- Select "CONVERGENCE" in the Install Menu.
- Correct the shift using the "NAVIGATION" buttons on the RCU



Using left / right keys, adjust for the best vertical lines.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- If the required alignment falls outside the central area of the barograph, set all barographs central and make the adjustments using the magnetic centring rings on the red and blue tubes.
- Firstly, unlock the lightly glued centring rings and then make the necessary adjustments.
- Once aligned the rings must be locked using a lightweight glue or varnish in order that subsequent adjustments can be made.

CENTRAL AREA IS CORRECT. BORDERS OR A SMALL AREAS ARE VERY POORLY ALIGNED

A - GREEN geometry is correct :
- Only adjust the Red and Blue geometry using Level 3 of the convergence menu, **don't touch the green geometry !**

B - GREEN nedds a small adjustment :
- First adjust the Green geometry, then align the Red and Blue geometry using **Level 3** convergence menu.

SMALL ADJUSTMENTS ARE NECESSARY EVERYWHERE.
GREEN GEOMETRY IS CORRECT

The some convergence lines are incorrect, but Green geometry is correct.
- Align Red and Blue geometry using convergence menu **Level 2**.
- Correct the borders if needed using convergence menu Level 3, **don't touch the green geometry !**.

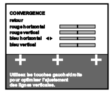
GREEN GEOMETRY IS POORLY ALIGNED

A - BLUE or RED Geometry is correct :
- Enter the convergence menu **Level 2** and press the YELLOW button on the RCU. The red, green and blue grids are displayed but only GREEN geometry can be aligned.
- Adjust the Green geometry to superimpose it on either the Red and/or Blue grid, to ease alignment select the best-converged colour and cover the others lens.

B - BLUE or RED is poorly aligned :
- Enter the Service Mode and select the GEOMETRY menu
- Adjust the alignment of the H/V Amplitudes and E/W Correction settings, if the geometry does not respond to adjustment then:
- Select convergence menu **Level 2** and press the YELLOW button on the RCU to select Green (3X5) alignment routine.
- Check that the centre point of the green grid is exactly central
- Align the grid pattern borders exactly with the screen borders.
- Align the outer edge of the picture if necessary, using convergence menu **Level 3**.
- Align RED convergence using menu **Level 2** and if necessary the borders with **Level 3**.
- Repeat the above process for BLUE alignment.

IMAGE ROUGE ET BLEUE DECALEES (F)

Réglage Statique
- Sélectionner convergence dans le menu d'installation.
- Corriger le décalage avec les touches de navigation.



Utilisez les touches gauche/droite pour optimiser l'ajustement des lignes verticales.

- *Appuyer sur la touche "INSTALL." du clavior du RP pour l'accès au menu d'installation*

- Si le réglage nécessaire est loin de la position centrale des bargraphs il est recommandé de mettre ceux-ci en position centrale et de corriger avec les anneaux de centrage magnétiques des tubes correspondants.
Débloquer préalablement les anneaux fixés par un collage léger.
- refixer ensuite les anneaux avec une colle ou laque pas trop forte pour autoriser une retouche ultérieure.

CENTRE CORRECT.
BORDS OU PETITE SURFACE NON CORRECTE

A - VERT a une géométrie correcte :
- Régler seulement le Rouge et Beu avec **Level 3, ne pas toucher au vert !**.

B - VERT nécessite une légère correction :
- Régler le Vert avec **Level 3** et corrger ensuite le Rouge et le Bleu avec **Level 3**.

PETITES CORRECTIONS NECESSAIRES EN TOUS POINTS DE L'ECRAN.
GEOMETRIE DU VERT CORRECTE

Quelques lignes ont une convergence incorrecte mais le Vert a une géométrie correcte.
- Régler le Rouge et le Bleu avec **Level 2**.
- Corriger les bords si nécessaire avec **Level 3, ne pas toucher au Vert !**.

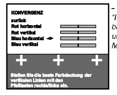
GEOMETRIE DU VERT NON CORRECTE

A - Géométrie du BLEU ou ROUGE correcte :
- Sélectionner **Level 2** et utiliser **la touche jaune** de la télécommande: Les images Rouge, Verte/Beue sont affichées mais la correction s'effectue sur le Vert
- Régler l'image du Vert afin de la superposer à celle du Rouge et/ou de celle du Bleu. Couvir le Bleu ou Rouge . Choisir l'image ayant la meilleure géométrie.

B - BLEU ou ROUGE ont une mauvaise géometrie :
- Selectionner dans le mode service les Réglages de géométrie H/V et Correction Est/Ouest
- Régler la Géométrie.
Si la géométrie ne peut être corrigée:
- Selectionner **Level 2** pour le Vert (3X5).
- Contrôler la position du centre.
- Régler les côtés de la mire exactement par rapport aux bords de l'écran.
- Régler les bords externes de l'image avec **Level 3** si nécessaire.
- Corriger le Rouge avec **Level 2** puis ensuite avec **Level 3** pour les bords si nécessaire.
- Procéder de même pour le Bleu.

ROTES UND BAUES BILD SIND VERSCHOBEN (D)

Statische Einstellung
-Wählen Sie im Installationsmenü "KONVERGENZ"
-Stellen Sie die beste Farbdeckung mit den Pfeil-Tasten ein.



Stellen Sie die beste Farbdeckung der vertikalen Linien mit den Pfeiltasten rechts/links ein.

- *Drücken Sie die Taste "INSTALL" auf dem Nahbedienfeld des Projektors um in das Installations-Menü zu kommen.*

- Sollte der Einstellbereich zu klein sein oder nicht ausreichen, empfehlen wir,alle Anzeigebalken auf Mittelstellung zu bringen und eine Korrektur der Farbdeckung mittels der Zentriermagnete der jeweiligen Röhre vorzunehmen.
- Lösen Sie hierzu zuerst die Verklebung der Ringe und nehmen dann die Einstellungen vor.Danach fixieren Sie die Ringe wieder so mit einem Kleber oder mit Sicherungslack,daß ein späterer Abgleich möglich ist.

DIE BILDMITTE IST IN ORDNUNG, SCHLECHTE DECKUNG AN DEN BILDRÄNDERN ODER IN KLEINEREN FLÄCHEN.

A - GRÜN-Geometrie ist in Ordnung:
- Gleichen Sie nur Rot und Blau im **Level 3** ab, **Grün nicht verstellen !**.

B - GRÜN benötigt geringe Korrekturen:
- Gleichen Sie Grün im **Level 3** nach und korrigieren dann Blau im **Level 3**.

ÜBERALL SIND KLEINE EINSTELLUNGEN NOTWENDIG, DIE GRÜN-GEOMETRIE IST IN ORDNUNG

Einige Linien sind nicht in Konvergenz, die Geometrie von Grün ist aber in Ordnung.
- Gleichen Sie Rot und Blau im **Level 2** ab,
- Gleichen Sie die Bildränder gegebenenfalls im **Level 3** nach, **Grün nicht verstellen !**.

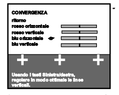
ABGLEICH DER GRÜN-GEOMETRIE

A - Die BLAU-oder ROT-Geometrie ist in Ordnung:
- Gehen Sie in das Konvergenzmenü **Level 2** und drücken Sie die GELBE Taste auf der Fernbedienung. Das rote, grüne und blaue Gitter werden angezeigt. Es läß sich jedoch nur die Geometrie von GRÜN einstellen.
- Bringen Sie das grüne Gitter mit dem roten oder blauen zur Deckung.Zur Vereinfachung des Abgleichs wählen Sie das am besten deckende Gitter und dunkeln die Linse der anderen Farbe ab.

B - BLAU oder ROT sind schlecht abgelichen :
- Gehen Sie im Service Mode in das Menü "GEOMETRY"
- Gleichen Sie die H-, V-Amplitude und die Ost/West-Korrektur nach.Solte die Geometrieeinstellung nicht reagieren:
- Gehen Sie in das Konvergenzmenü **Level 2** und drücken die GELBE Taste auf der Fernbedienung um den GRÜN (3X5)-Abgleich zu wählen.
- Überprüfen Sie ob der Mittelpunkt des grünen Gitters in der exakten Mitte des Bildschirmes ist.
- Stellen Sie die Ränder des Gittermusters exakt auf Ränder des Bildschirmes ein.
- Gegebenenfalls korrigieren Sie die Einstellungen der äußeren Ecken im Konvergenzmenü **Level 3**.
- Gleichen Sie die ROT-Konvergenz im **Level 2** ab,ggf. korrigieren Sie Ränder im **Level 3**.
- Wiederholen Sie diessen Abgleich mit BLAU.

IMMAGINE ROSSA E BLU SPOSTATA. (I)

Regolazione statica
- Selezionare Convergence nel menu Install.
- Correggere lo spostamento utilizzando i tasti numerici.



Usando i tasti Sinistra/destra, regolare in modo ottimale le linee verticali.

- *Press the"INSTALL." button on the projector keyboard to solcct in Installation menu.*

- Se la regolazione ottimale è lontana dalla posizione centrale della barra grafica, è consigliabile porre questi in posizione centrale ed effettuare le correzioni con gli anelli di centratura magnetici dei tubi corrispondenti.
Sbloccare inizialmente gli anelli leggermente incollati.
- Reincollarli utilizzando colla leggera o lacca per rendere possibili successivi ritocchi.

L'AREA CENTRALE È CORRETTA.
I BORDI O UNA PICCOLA AREA SONO SCORRETTI

A - La geometria del VERDE è corretta :
- Regolare solo Rosso e Blu utilizzando **Level 3, non toccare Il Verde !**.

B - Sono necesssarie piccole modifiche anche per il VERDE:
- Regolare il Verde utilizzando **Level 3** quindi correggere Rosso e Blu utilizzando **Level 3**.

È NECESSARIO APPORTARE OVUNQUE PICCOLE MODIFICHE. LA GEOMETRIA DEL VERDE È CORRETTA.

Alcune linee non sono in convergenza ma la geometria del Verde è corretta.
- Regolare Rosso e Blu utilizzando **Level 2**.
- Se necessario, correggere i bordi utilizzando **Level 3, non toccare Il Verde !**.

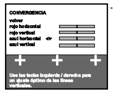
LA GEOMETRIA DEL VERDE È SCORRETTA.

A - La geometria del BLU o del ROSSO è corretta :
- Nel **Level 2** utilizzare il Pulsante giallo sul telecomando: vengono visualizzati Rosso, Verde e Blu ma le correzioni vengono effettuate nel Verde.
- Regolare il Verde perchè si sovrapponga su Rosso e/o Blu.
Le lenti Rossa o Blu per una facile regolazione devono essere coperte.
Scegliere quella più visibile e che presenta la geometria migliore.

B – La geometria del BLU o del ROSSO è scorretta :
- In Service Mode Geometry selezionare: ampiezza H/V (Orizzontale/Verticale) e East/West.
- Regolare la geometria.
Se la Geometria non è regolabile:
- Selezionare **Level 2** per il Verde (3x5).
- Controllare che il centro si trovi esattamente in centro.
- Allineare i bordi dell reticola ai bordi dello schermo.
- Se necessario, regolare la parte esterna dell'immagine utilizzando **Level 3**.
- Correggere il Rosso utlizzando **Level 2** e, se necessario, **Level 3** per i bordi.
- Ripetere la medesima procedura per il Blu.

IMAGEN ROJA Y AZUL DESPLAZADA (E)

Ajuste estático
-Seleccione la convergencia en el menú Install.
Corrija el desplazamiento con las teclas de navegación.



Use las teclas izquierda / derecha para un ajuste óptimo de las líneas verticales.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- Si el ajuste necesario está lejos de la posición central de los gráficos de barras, se recomienda situarlos en la posición central y corregirlos con los anillos de centrado magnéticos de los tubos correspondientes.
Desbloquee previamente los anillos fijados con un pegamento ligero.
- A continuación, fije de nuevo los anillos con un pegamento o una laca no muy fuerte para permitir un ajuste posterior.

EL ÁREA CENTRAL ES CORRECTA.
LOS BORDES O UN ÁREA PEQUEÑA NO SON CORRECTOS

A - VERDE tiene una geometría correcta:
- Ajuste sólo rojo y azul con el **nivel 3,no altere verde !**.

B - VERDE también necesita una pequeña corrección:
- Ajuste verde con el **nivel 3** y después corrija rojo y azul con el mismo **nivel 3**.

SE NECESITAN PEQUEÑOS AJUSTES EN TODO.
LA GEOMETRÍA VERDE ES CORRECTA

Algunas líneas carecen de convergencia, pero la geometría verde es correcta.
- Ajuste rojo y azul con el **nivel 2**.
- Corrija los bordes si es necesario con el **nivel 3, no altere el verde !**.

LA GEOMETRÍA VERDE NO ES CORRECTA

A - AZUL o ROJO tienen una geometría correcta:
- Con el **nivel 2**, utilice el botón amarillo en el control remoto: se visualizan rojo, verde y azul, pero la corrección está en verde.
- Ajuste verde para superponer en rojo o azul.
Las lentes rojas o azules se pueden cubrir. Seleccione la que sea más visible o tenga la mejor geometría.

B - AZUL o ROJO tienen también una geometría deficiente:
- En geometría del modo de serivicio, seleccione: amplitud H/V y Este/Oeste.
- Ajuste la geometría.
Si esta geometría no se puede ajustar:
-Seleccione el **Nivel 2** para verde (3x5).
- Compruebe que el centro está situado exactamente en el centro.
- Realice los ajustes necesarios para que los bordes de la rejilla coincidan con los de la pantalla.
- Ajuste la parte exterior de la imagen con el **Nivel 3** si es necesario.
- Corrija rojo con el **Nivel 2** y después con el **Nivel 3** para los bordes si es necesario.
- Repita la misma operación para azul.

INFORMATION NOTE - INFORMATION - NOTA INFORMATIVA - NOTA DE INFORMACIÓN

GB

CORRECTION OF BANDING EFFECT

The "Banding Effect" is a non-uniform area or shadow on the screen, which can happen after convergence adjustments have been performed in Level 3, The effect can be caused by either: -- two horizontal lines being to close together (a bright area).- two horizontal lines being to far apart (a dark area).The effect is most visible on a uniform pictures (see diagram below).

Adjustment Procedure :
Identify the colour causing the problem and then blank off the other two lenses.
- Enter the convergence menu at Level 3 and select the corresponding colours alignment routine.
- Using the NUMERICAL buttons (2, 8, 6 and 4) on the RCU, position the cursor on the right hand edge of the non-uniform area of the screen.
- Remove the test grid pattern by disconnecting the cable connected to socket BK01 on the DCU board.
- Adjust the brightness of the non-uniform area using the "NAVIGATION" (up, down, left and right) buttons on the RCU.
- Select the next cursor position using the NUMERICAL buttons on the RCU and adjust its brightness.
- After completing the adjustment procedure reconnect the cable to BK01 on the DCU board.

I

CORREZIONE DELL' EFFETTO BANDING

L'« effetto banding » è costituito da un'area non uniforme (ombra) che può prodursi dopo regolazione della convergenza (p. es. Level 3).
- Quando due linee sono troppo distanti: l'immagine è più scura.
- Quando due linee troppo sono vicine: l'immagine è più luminosa.
Ciò è visibile su un'immagine uniforme (Vedere Illustrazione sottostante).

Procedura:
- Identificare quale colore provoca il difetto coprendo le due lenti in modo che sia visibile solo un colore su un monoscopio bianco.
- Selezionare level 3 per il colore corrispondente.
- Posizionare il cursore nella giusta posizione.
- Rimuovere la griglia scollegando il cavo dal connettore BK01 sul DCU.
- Correggere la non uniformità nella luminosità.
- Spostare il cursore a destra o a sinistra per correggere il punto successivo.
- Terminate le regolazioni, non dimenticare di collegare il cavo BK01.

E

CORRECCIÓN DEL EFECTO DE BANDA

El "efecto de banda" es un área no uniforme (sombra). Puede ocurrir después de un ajuste de convergencia (por ej., nivel 3).
- Cuando 2 líneas horizontales están demasiado cercanas: el área es más brillante.
- Cuando 2 líneas horizontales están demasiado distantes: el área es más oscura.
Es visible en una imagen uniforme (vea el dibujo más abajo).
Procedimiento:
- Identifique el color que ocasiona el fallo cubriendo 2 lentes, de modo que sólo se vea un color con una plantilla de prueba blanca.
- Seleccione el nivel 3 para el color correspondiente.
- Coloque el cursor en el lugar adecuado.
- Retire la rejilla desconectando el cable del conector BK01 en la placa DCU.
- Corrija la falta de uniformidad en el brillo.
Mueva el cursor a la derecha o a la izquierda para corregir la posición siguiente.
- No olvide conectar el cable BK01 después del ajuste.

F

CORRECTION DE L'EFFET DE BANDE

L'effet de bande est une zône d'écran non uniforme (ombre). .Ceci peut survenir après un réglage de convergence (par exemple "Level 3").
- Lorsque deux ligne horizontales sont trop proches : *la bande est brillante*
- Lorsque deux ligne horizontales sont trop distantes : *la bande est sombre.*
L'effet de bande est visible sur image fixe.(Voir Fig. ci-dessous).

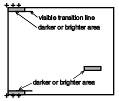
Procédure :
- Identifier la couleur affectée par l'effet de bande en recouvrant deux optiques.
- Selectionner le niveau " **level 3"** correspondant à la couleur du défaut .
- Positionner le curseur à sa place exacte .
- Désélectionner la mire interne en déconnectant le connecteur BK01 de la platine DCU.
- Corriger le phénomène .
- Déplacer le curseur à gauche ou à droite pour le réglage du point suivant .
- Ne pas omettre de reconnecter le connecteur après les réglages.

D

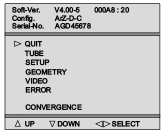
KORREKTUR DES BANDING-EFFEKTES

Der Banding-Effekt ist eine ungleichmäßige Zone oder ein Schatten auf dem Bildschirm. Dies kann nach einem Konvergenzabgleich im Level 3 auftreten- Der Effekt wird verursacht von.
-zwei horizontale Linien sind zu dicht zusammen (helle Zone)
-zwei horizontale Linien sind zu weit auseinander (dunkle Zone).
Der Effekt wird bei einem einfarbigen Bild am meisten sichtbar (siehe Bild unten).

Abgleich:
Stellen Sie fest, welche Farbe den Effekt verursacht indem Sie jeweils zwei Farben abdecken.
- Gehen Sie in das Konvergenzmenü **Level 3** und wählen Sie den Abgleich für die jeweilige Farbe.
- Mit der Zifferntastatur (2, 8, 6 und 4) der Ferbedienung bringen Sie den Cursor auf die rechte Kante der Zone.
- Schalten Sie das Gittermuster durch Ziehen des Kabels vom Verbinder BK01 auf der DCU-Platine aus.
- Stellen Sie die Helligkeit der Zone mit den Pfeiltasten der Fernbedienung ein.
- Bewegen Sie den Cursor auf die nächste Position und wiederholen die Einstellung.
- Nach dem Abgleich stecken Sie das Kabel wieder auf Verbinder BK01.



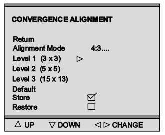
CONVERGENCE ADJUSTMENT - REGLAGES DES CONVERGENCES - KONVERGENZ ABGLEICH - REGOLAZIONE CONVERGENZA - AJUSTE DE CONVERGENCIA


Soft-Ver. V4.00-5 000A8 : 20
Config. ArZ-D-C
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

CONVERGENCE

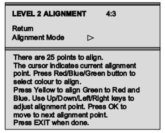
△ UP ▽ DOWN ◁▷ SELECT


CONVERGENCE ALIGNMENT

Return
Alignment Mode 4:3....
Level 1 (3 x 3) ▷
Level 2 (5 x 5)
Level 3 (15 x 13)
Default
Store ☑
Restore ☐

△ UP ▽ DOWN ◁ ▷ CHANGE

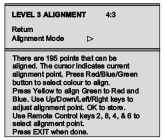
LEVEL 2


LEVEL 2 ALIGNMENT 4:3

Return
Alignment Mode ▷

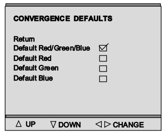
There are 25 points to align.
The cursor indicates current alignment point. Press Red/Blue/Green button to select colour to align.
Press Yellow to align Green to Red and Blue. Use Up/Down/Left/Right keys to adjust alignment point. Press OK to move to next alignment point.
Press EXIT when done.

LEVEL 3


LEVEL 3 ALIGNMENT 4:3

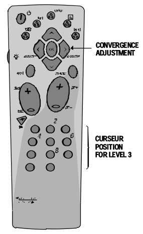
Return
Alignment Mode ▷

There are 195 points that can be aligned. The cursor indicates current alignment point. Press Red/Blue/Green button to select colour to align.
Press Yellow to align Green to Red and Blue. Use Up/Down/Left/Right keys to adjust alignment point. OK to store.
Use Remote Control keys 2, 8, 4, & 6 to select alignment point.
Press EXIT when done.


CONVERGENCE DEFAULTS

Return
Default Red/Green/Blue ☑
Default Red ☐
Default Green ☐
Default Blue ☐

△ UP ▽ DOWN ◁ ▷ CHANGE



SERVICE MODE (GB)

- Select “CONVERGENCE”

- Select the “ALIGNMENT MODE” line of the convergence menu.- Start the adjustment procedures in the 4:3 format.- Select “LEVEL 2” menu line and LEVEL 2 ALIGNMENT menu will appear.

Please Note:

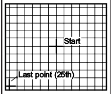
-Level 1 menu line (factory alignment) must be used. This alignment procedure must also be repeated for 16:9 format.

LEVEL 2 ALIGNMENT MENU :

- Press the **“OK”** button on the RCU to activate the Green test grid pattern, this is used throughout the alignment procedure as a reference.
- Confirm that the Green geometry is correct.
- Press the “RED” button on the RCU to activate the red test grid, the cursor will be set to the centre point on the red grid.
- Using the “NAVIGATION” (“∧”up, “∨” down, “<” left and “▷” right) buttons on the RCU, align the red central cursor position to the green centre grid reference point.
A long press on the associated “NAVIGATION” button on the RCU will accelerate the step size of the adjustment.
- Press the **“OK”** button on the RCU to advance to the next cursor position and repeat the alignment process until all twenty five (25th = screen bottom left) alignment position have been checked.

IMPORTANT :

When the last position has been adjusted:
- **Press** the **“OK”** button on the RCU **only one time and wait for 60s**.
The microprocessor will calculate all the intermediate positions and nothing will happen for 10s, then the cursor will disappear for 15s.Finally the cursor will re-appear move back through all adjustment points to the centre point on the test grid.



- Press the “EXIT” button on the RCU to return to “Level 2” menu.
- Select ”RETURN” on the menu.
- Next select “STORE” on the convergence menu.
- Check for “Banding Effect” (see information note page 32).
- Repeat the alignment procedure for “BLUE”.

LEVEL 3 ALIGNMENT :

Each one of the 195 alignment point can be reached by;
- Using the NUMERICAL buttons 2 (up), 8 (down), 6 (right) and 4 (left) on the RCU to position the cursor on the screen.
- Convergence alignment is done using the “NAVIGATION” (“(∧)”up, “ ▽ ” down, “<” left and “ ▷ ” right) buttons on the RCU.
- Press the “EXIT” button on the RCU to return to “Level 2” menu.
- Select ”RETURN” on the menu.
- Next select “STORE” on the convergence menu.
- Check for “Banding Effect” (see information note page 32).

IMPORTANT :

Once “Level 3” alignment is completed, do not use “Level 2” otherwise all adjustments made in “Level 3” will be ERASED.

16:9 : Select 16:9 format in the Convergence Alignment menu and repeat the above procedures.

Convergence defaults :

If the convergence alignment is completely wrong most adjustments can be made starting with the factory convergence values, these are stored in the NVM as default values.

Default Red/Green/Blue : All of the colours convergence default values are stored in the Convergence RAM IC.

Default Red
Default Green Load the values for either Red ,Green or Blue.
Default Blue

Restore : copies the last stored values from the NVM to the convergence RAM IC.

Store : Copies all Convergence RAM values to the NVM.

SERVICE MODE (F)

- Selectionner “CONVERGENCE”

- Selectionner “Alignment Mode”.
- Commencer les réglages avec le format “4:3”.
- Selectionner “ Level 2”.
  Le menu de réglage “ Level 2” apparaît.

Note :

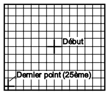
La procédure de réglage s’applique également au format 16/9.

MENU D’ALIGNEMENT “LEVEL 2” :

- Appuyer sur la touche OK de la télécommande.
La mire de convergence apparaît .
- Contrôler la Géométrie du Vert .
- Appuyer sur la touche Rouge de la télécommande pour régler le Rouge par rapport à la mire du Vert servant de référence . Le curseur est au centre.
- Utiliser les touches de navigation “△”, “∨ ”,“◁”, et “ >” de la télécommande pour effectuer le réglage.
Une longue pression permet d’obtenir un effet d’accélération du réglage.
Après le réglage du centre:
- Appuyer sur **OK** pour la sélection du point suivant à régler.
Lorsque ce second point est aligné ou si aucun réglage n’est nécessaire appuyer sur la touche **“OK”**.
Effectuer ainsi jusqu’au dernier point (25)au coin inférieur gauche.

IMPORTANT :

Lorsque le dernier point est réglé :
- **Appuyer sur “OK” une seule fois et attendre 60s**.
Le microprocesseur calcule toutes les positions intermédiaires: rien ne se passe à l’écran durant 10s.Le curseur disparaît pendant 15s.
Finalement, via toutes les positions, il se stabilise au centre de l’écran.



- Appuyer sur “Exit” pour retourner au menu “Level 2”.
- Selectionner “Return”: le menu “convergence alignment”apparaît
- Mémoriser par **“store”**.
- Contrôler l’effet de Bande (Voir ci-après la Note d’Information).
Même procédure pour le Bleu.

ALIGNEMENT LEVEL 3

Chacun des 195 points de réglage est accessible :
- Utiliser les touches numériques suivantes: **2** (haut), **8** (bas), **6** (droit) et **8** (bas).
- le réglage des convergences s’effectue au moyen des touches de navigation **haut** (△),**bas** ∨ ,**gauche** ◁ et **droit** > .
- Appuyer sur la touche “EXIT”de la télécommande pour retourner au menu “Level 2”
- Sortir du menu d’alignement des convergences et **mémoriser**.
- Contrôler l’effet de Bande (Voir la Note d’Information ci-après).

IMPORTANT :

Aprèsavoir reglé le “level 3” ne pas utiliser le “level 2”, les corrections effectuées au “level 3” seraient perdues.

16:9 : Selectionner 16:9 dans le menu Mode alignement; répéter la procédure.

Valeurs par defaults :

En cas de déréglages importants des convergences,l’alignement peut être reprit à partir des valeurs usines.
Ces valeurs par défaut sont mémorisées en NVM.

Default Red/Green/Blue : Toutes les valeurs par défaut des trois couleurs sont mémorisées dans la RAM de convergence.

Default Red
Default Green Charge les valeurs pour le rouge, le Vert ou le Bleu.
Default Blue

Restore : copie toutes les valeurs des données NVM en mémoire RAM de convergence.

Store : Copie la valeur RAM en NVM de convergence.

SERVICE MODE (D)

- Wählen Sie “CONVERGENCE”

- Wählen Sie “ALIGNMENT MODE”.
- Beginnen Sie den Abgleich im 4:3 Format
- Wählen Sie Level 2.
  Das “LEVEL 2 ALIGNMENT”-Menü erscheint.

Bitte beachten sie:

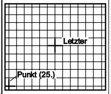
- Die Einstellungen im Level 1 sind Werkseinstellungen und sollten nicht verändert werden.
  Der Konvergenzabgleich ist auch für das 16:9 Format vorzunehmen.

ABGLEICHMENÜ “LEVEL 2” :

- Drücken Sie **OK**-Taste auf der Fernbedienung um das Grün-Gittermuster zu aktivieren. Dieses dient für den gesamten Abgleich als Referenz.
- Überprüfen Sie die Grün-Geometrie.
- Drücken Sie die rote Taste auf der Fernbedienung um das rote Gittermuster zu aktivieren. Der Cursor erscheint in der Mitte des roten Gitters.
- Mit den Pfeiltasten (“∧” hoch, “ ▽ ” runter, “ < ” links , “ > ” rechts) auf der Fernbedienung bringen Sie die Mitte des roten Cursors auf die Mitte des Bezugspunktes im grünen Gitter. Ein längeres Drücken der Pfeiltasten erhöht die Schrittgröße beim Abgleich.
- Drücken Sie die OK-Taste um auf die nächste Cursor-Position zu gelangen. Wiederholen Sie den Abgleich bis alle 25 Abgleichpunkte (der 25.Punkt ist links unten) korrigiert sind.

WICHTIG :

Wenn der letzte Punkt abgeglichen wurde:
- **Drücken Sie die OK-Taste nur einmal und warten Sie etwa 60s.**
Der Microprozessor berechnet alle Zwischen-positionen. Für etwa 10s geschieht nichts,dann verschwindet der Cursor für etwa 15s. Dann läuft der Cursor über alle Abgleichpunkte zurück in die Mitte des Gittermusters.



- Drücken Sie die EXIT-Taste um in das “LEVEL 2”-Menü zurückzukehren.
- Wählen Sie im Menü “RETURN”.
- Wählen Sie im Konvergenzmenü “STORE” .
- Überprüfen Sie das Bild auf den Banding-Effekt (siehe Information auf Seite 32). Wiederholen Sie den Abgleich mit BLAU.

ABGLEICH LEVEL 3 :

- Jeden der 195 Abgleichpunkte auf dem Bildschirm erreichen Sie über die Zifferntastatur der Ferbedienung (“2” hoch, “8” runter, “4” links, “6” rechts).
- Der Konvergenzabgleich wird mittels der Pfeiltasten vorgenommen “(∧)” hoch, “(▽)” runter,”(◁)” links, “(▷)” rechts.
- Drücken Sie die EXIT-Taste um in das “LEVEL 2”-Menü zurückzukehren.
- Wählen Sie im Menü “RETURN”.
- Wählen Sie im Konvergenzmenü “STORE”.
- Überprüfen Sie das Bild auf den Banding-Effekt (siehe Information auf Seite 32).

WICHTIG :

Nach dem Abgleich im Level 3 machen Sie keine Einstellungen mehr im Level 2, da sonst die Abgleichswerte des Level 3 gelöscht werden.

16:9 : Wählen Sie das 16:9 Format im Konvergenzmenü und wiederholen Sie den gesamten Abgleich.

Konvergenz-Defaultwerte :

Sollte der Konvergenzabgleich völlig inkorrekt sein, kann ein Neuabgleich ausgehend von den Fabrikswerten ratsam sein. Diese sind als Defaultwerte im NVM gespeichert.

Default Rot/Grün/Blau : die Defaultwerte der Konvergenz aller Farben sind im Konvergenz-RAM gespeichert.

Default Rot
Default Grün Laden Sie die Defaultwerte einzein für Rot, Grün oder Blau.
Default Blau

Restore : die zuletzt in das NVM gespeicherten Werte werden ins Konvergenz-RAM kopiert.

Store : alle Werte aus dem Konvergenz-RAM in das NVM.

SERVICE MODE (I)

- Selezionare “CONVERGENCE“

- Selezionare « Alignement Mode ».
- Avviare la regolazione con formato 4:3.
- Selezionare « Level 2 ».
- Viene visualizzato il menu Level 2 alignement.

Nota :

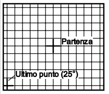
La procedura deve essere effettuata anche in modo 16/9.

LIVELLO 2 MENU DI REGOLAZIONE :

- Premere il tasto **“OK”** sul telecomando. Viene visualizzata la griglia verde.
- Controllare che la geometria della griglia Verde sia corretta.
- Premere il tasto Rosso sul telecomando per regolare il Rosso con la griglia Verde come riferimento.
- Il cursore si trova al centro.
- Utilizzare i tasti su, giù sinistra e destra sul telecomando per regolare la posizione di allineamento.
Con una lunga pressione del tasto si determina un effetto di accelerazione del passo di allineamento.
Dopo avere regolato il centro :
- Premere il tasto **“OK”** per selezionare la posizione successiva da regolare.Quando il secondo punto è stato regolato o la regolazione non è necessaria, premere il tasto **“OK”**.
Proseguire la procedura fino a raggiungere l’ultimo punto (25°) sulla parte inferiore sinistra.

IMPORTANTE :

- Quando l’ultimo punto viene regolato, premere il tasto **OK una sola volta ed attendere 60 secondi.**
Il microprocessore calcola tutte le posizioni intermedie: per 10 secondi non accade nulla. Quindi, il cursore scompare per 15 secondi. Il cursore si sposterà infine su tutte le posizioni fino al centro.



Premere « Exit » per ritornare al menu “ Level 2 alignement ”.
- Selezionare “Return”: viene visualizzato il menu “Convergence Alignement”.
- Memorizzare le regolazioni.
- Controllare la presenza d’ « effetto Banding » (Vedere nota informativa). Seguire la medesima procedura per il blu.

LIVELLO 3 REGOLAZIONI :

- I 195 punti possono essere raggiunti mediante:
- L’uso dei tasti numerici RCU: 2 (su), 8 (giù), 6 (destra), e 4 (sinistra).
- La convergeznza viene regolata mediante i tasti up “(△)” , down “(∨)”, left “(◁)” e right “(▷)”.
- Uscire dal menu « Convergence alignement » e memorizzare le regolazioni acquisite.
- Controllare la presenza di effetto Banding (Vedere nota informativa).

IMPORTANTE ::

Dopo avere regolato « level 3 » non utilizzare « level 2 » perchè le correzioni effettutuate al « level 3 » andrebbero perse.

16:9 :Selezionare 16:9 in Alignement Mode e ripetere la procedura.

Default di convergenza :

Se l’allineamento della convergenza è completamente errato le regolazioni possono essere effettuate richiamendo i valori di convergenza di fabbrica. Questi valori vengono memorizzati come valori di default in nella NVM.

Default Red/Green/Blue : Tutti i valori di default dei tre colori vengono memorizzati nell IC RAM di convergenza.

Default Red
Default Green Carica i valori per rosso, verde e blu
Default Blue

Restore : Copia gli ultimi valori memorizzati dalla NVM nella RAM di convergenza.

Store : Copia i valori RAM nella convergenza della NVM.

SERVICE MODE (E)

- Seleccione "CONVERGENCIA"

- Seleccione "Modo de alineación".
- Inicie los ajustes con el formato "4:3"
- Seleccione "nivel 2"
  Aparece el menú de alineación de nivel 2.

Nota:

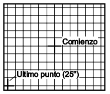
El procedimiento debe realizarse también para 16/9.

MENU DE ALINEACION "NIVEL 2":

- Pulse **“OK”** en el control remoto y aparecerá la rejilla verde.
- Compruebe si la geometría verde es correcta.
- Pulse el botón rojo en el control remoto para ajustar rojo con la rejilla verde como referencia.
  El cursor está en el centro.
- Ajuste la posición de la alineación con las teclas del control remoto para moverse hacia arriba, abajo, izquierda y derecha. Si las pulsa de forma prolongada, se produce un efecto de aceleración en el tamaño del paso de la alineación.
Después del ajuste del centro:
- Pulse **“OK”** para seleccionar la posición siguiente a ajustar.
Cuando se ajusta este segundo punto o el ajuste no es necesario, pulse **"OK"**.
Repita la operación hasta el último punto (nº 25) en la parte inferior izquierda.

IMPORTANTE :

Cuando se ajuste el último punto:
-Pulse **"OK" una vez y espere durante 60 segundos.**
El microprocesador calcula todas las posiciones intermedias: durante 10 segundos no ocurre nada. Después, el cursor desaparece durante 15 segundos, y finalmente se mueve a todas las posiciones hasta el centro.



- Pulse "Salida" para volver al menú "Nivel 2".
- Seleccione Return: aparece el menú de alineación de convergencia.
- Almacene.
- Compruebe si se produce el efecto de banda (vea la nota de información).Siga el mismo procedimiento para azul.

ALINEACION NIVEL 3 :

Se pueden alcanzar los 195 puntos:
- Utilice los botones de número RCU: 2 (arriba), 8 (abajo), 6 (derecha) y 4 (izquierda).
- La convergencia se ajusta mediante las teclas de navegación hacia arriba, abajo, izquierda y derecha.
- Salida a almacenar y menú de alineación de convergencia.
- Compruebe si se produce el efecto de banda (vea la nota de información)

IMPORTANTE ::

Una vez configurado el "nivel 3", no utilice el "nivel 2" o perderá las correcciones efectuadas en el 3.

16:9 Seleccione 16:9 en el modo de alineación y repita el procedimiento

Parámetros de convergencia por defecto:

Si la alineación de convergencia es totalmente errónea, la mayor parte de los ajustes se pueden realizar con los valores de convergencia de fábrica.Estos parámetros se almacenan como valores por defecto en una memoria no volátil.

Default Red/Green/Blue :todos los valores por defecto de los tres colores se almacenan en la memoria de acceso aleatorio (RAM) IC de convergencia.

Default Red
Default Green Cargue los valores para rojo, verde o azul.
Default Blue

Restore : copia los últimos valores almacenados de la memoria no volátil a la RAM de convergencia

Store : copia los valores RAM en la NVM de convergencia.

Note :

In the event of it being necessary to replace all three tubes (tubes marked or still operational), it is easier, when making convergence adjustments, to replace one tube first, and converge it to the two other tubes in order to keep the original geometry setting.
Then replace the two other tubes and realign them to the reference tube.

En cas de nécessité de changement des trois tubes (tubes marqués ou encore fonctionnels) il est plus simple, au niveau du réglage des convergences, de changer d’abord un tube, de le converger sur les deux autres pour conserver le réglage de géométrie original.
Ensuite changer les deux autres tubes et les réaligner sur le tube de référence.

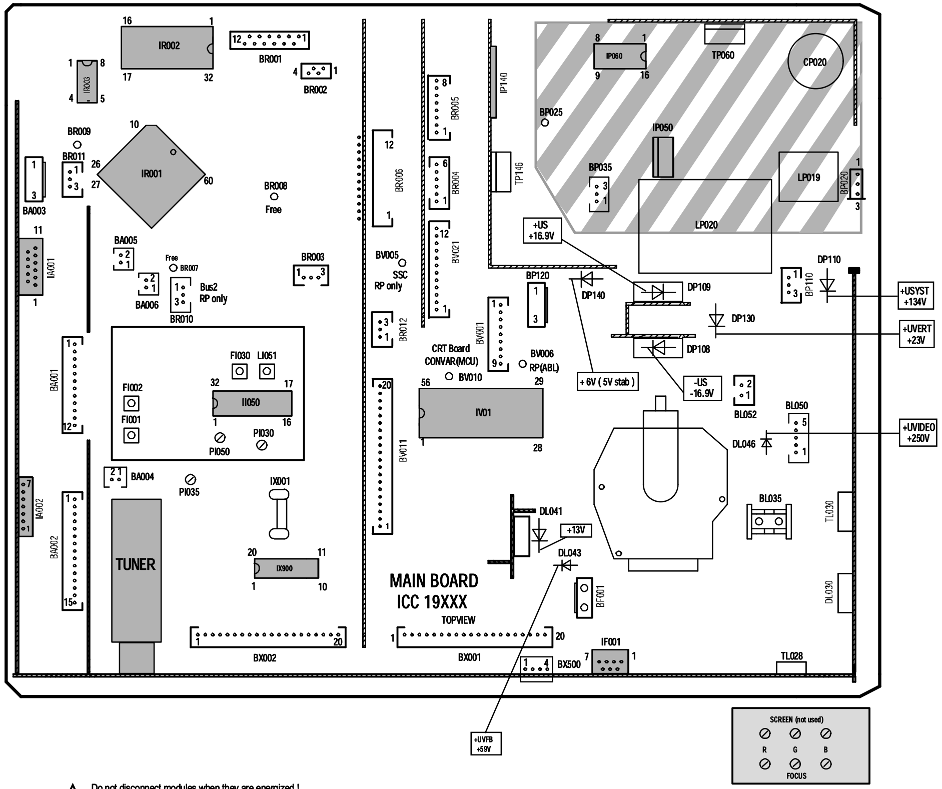
Im Falle, daß ein Auswechseln aller drei Röhren notwendig ist, ist es einfacher (falls die Röhren noch funktionsfähig sind), die notwendige Konvergenzeinstellung so vorzunehmen, daß zunächst erst eine Röhre ausgewechselt wird: Gleichen Sie diese den beiden alten Röhren an, damit Sie die originale geometrische Einstellung haben.
Wechseln Sie dann die beiden anderen Röhren und gleichen Sie diese der Referenzröhre an.

Nel caso in cui si renda necessaria la sostituzione dei tre tubi (tubi marcati o ancora in funzione) è più semplice, quando si eseguono regolazioni della convergenza, sostituire prima un tubo e convergerlo agli altri due per conservare la regolazione di geometria iniziale. Sostituire quindi gli altri due tubi e riallinearli al tubo di riferimento.

Si necesita cambiar los 3 tubos (tubos marcados o aún funcionales), resulta más fácil, en lo que respecta al ajuste de las convergencias, cambiar primero un tubo y convergirlo sobre los otros 2 para mantener la configuración de la geometría original.
Cambie seguidamente los otros dos tubos y proceda a realinearlos con el tubo de referencia.

LOCATION OF CONTROLS - EMPLACEMENT DES REGLAGES - SERVICE LAGEPLAN - POSIZIONE REGOLATORI DI SERVIZIO - SITUACIÓN DE LOS AJUSTES

MAIN BOARD - PLATINE PRINCIPALE - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES


IR002
BR001
BR002
IR003
BR009
BR011
IR001
BA003
BR008
Free
IA001
BA005
BA006
Free
BR007
Bus2
RP only
BR010
BR003
FI030
LI051
FI002
II050
FI001
PI030
PI050
BA004
PI035
IX001
IA002
BA001
BA002
TUNER
IX900
BX002
BR006
BR005
BR004
BV021
BV005
SSC
RP only
BR012
CRT Board
CONVAR(MCU)
BV010
BV001
BV006
RP(ABL)
BV011
IV001
MAIN BOARD
ICC 19XXX
TOPVIEW
BX001
BX500
IF001
IP060
TP060
CP020
IP140
TP146
BP025
IP050
BP035
LP019
BR020
LP020
+US
+16.9V
BP120
DP140
DP109
DP130
DP108
DP110
BP110
+USYST
+134V
+UVERT
+23V
+6V (5V stab)
-US
-16.9V
BL052
BL050
DL046
+UVIDEO
+250V
BL035
DL041
+13V
DL043
BF001
TL030
DL030
TL028
+UVFB
+59V
SCREEN (not used)
R
G
B
FOCUS

⚠ Do not disconnect modules when they are energized ! Repairs on power supply section are to be carried out only with isolating transformer.

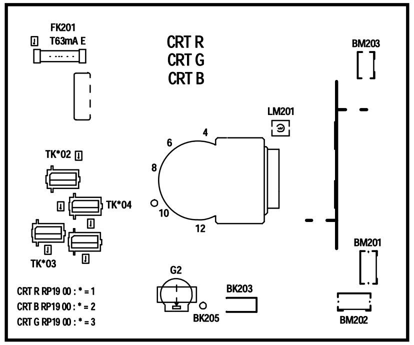
Ne pas retirer les modules lorsqu'ils sont sous tension. N'effectuer les travaux de maintenance sur la partie reliée au secteur (Switch mode) qu'au travers d'un transformateur d'isolement.

Module nicht bei eingeschaltetem Gerät entfernen ! Servcearbeiten am Netzteil nur unter Verwendung eines Regeltrenntrafos durchführen.

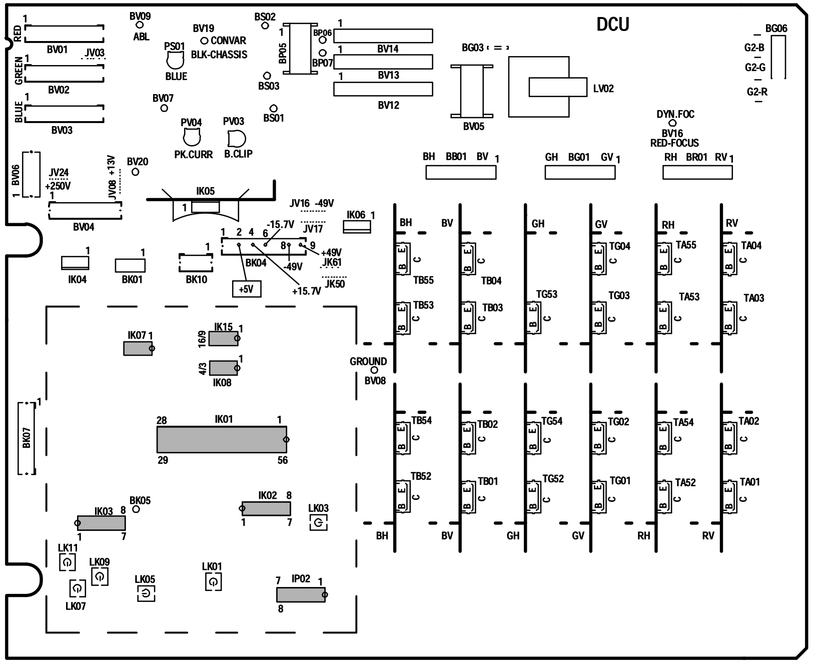
Non scollegare i moduli quando sono alimentati ! effettuare riparazioni sulla sezione alimentatore solo con transformatore isolante.

No desconectar los módulos cuando están activados ! Las reparaciones en la sección de alimentación de energia deben ser ejecutadas solamente con un transformador de separacion.

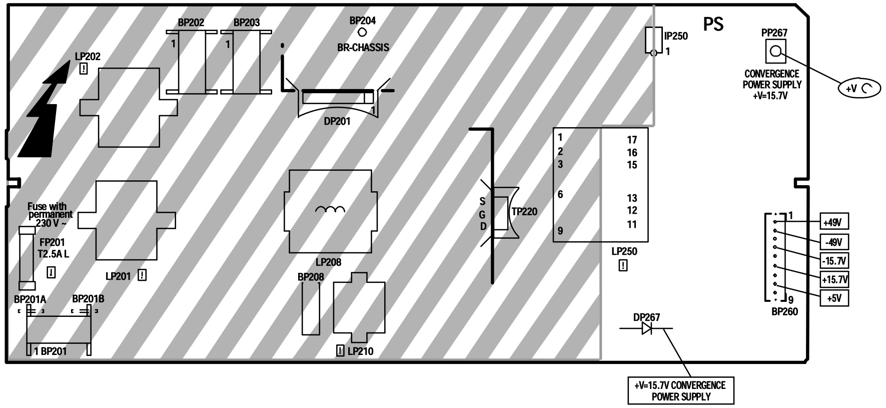
▨ Part of Board connected to mains supply.
Partie du châssis reliée au secteur.
Primärseitedes Netzteils
Parte del pannello collegato alla rete di alimentazione
Parte del chasis conectada a la red


FK201
T63mA E
CRT R
CRT G
CRT B
BM203
LM201
TK*02
TK*04
TK*03
G2
BK203
BK205
BM201
BM202
CRT R RP19 00 : * = 1
CRT B RP19 00 : * = 2
CRT G RP19 00 : * = 3

DIGITAL CONVERGENCE UNIT - PLATINE DE CONVERGENCE NUMERIQUE - DIGITALE KONVERGENZEINHEIT - UNITÀ DI CONVERGENZA DIGITALE - UNIDAD DE CONVERGENCIA DIGITAL


DCU
RED
GREEN
BLUE
BV01
JV03
BV02
BV03
BV09
ABL
BV19
CONVAR
BLK-CHASSIS
PS01
BLUE
BV07
PV04
PK.CURR
PV03
B.CLIP
BS02
BS03
BS01
BP05
BP06
BP07
BV14
BV13
BV12
BG03
BV05
LV02
BG06
G2-B
G2-G
G2-R
DYN.FOC
BV16
RED-FOCUS
BH BB01 BV
GH BG01 GV
RH BR01 RV
BV06
JV24
+250V
JV08 +13V
BV20
BV04
IK05
JV16 -49V
-15.7V
JV17
IK06
+49V
JK61
-49V
JK50
+15.7V
BK04
IK04
BK01
BK10
+5V
IK07
IK15
16/9
4/3
IK08
GROUND
BV08
BK07
IK01
IK03
BK05
IK02
LK03
LK11
LK09
LK07
LK05
LK01
IP02
BH
BV
GH
GV
RH
RV
TB55
TB04
TG04
TA55
TA04
TB53
TB03
TG53
TG03
TA53
TA03
TB54
TB02
TG54
TG02
TA54
TA02
TB52
TB01
TG52
TG01
TA52
TA01

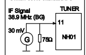
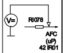
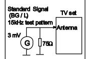
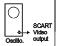
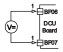
DIGITAL CONVERGENCE UNIT POWER SUPPLY - ALIMENTATION PLATINE DE CONVERGENCE NUMERIQUE - NETZTEIL KONVERGENZEINHEIT - ALIMENTAZIONE UNITÀ DI CONVERGENZA DIGITALE- ALIMENTACIÓN UNIDAD DE CONVERGENCIA DIGITAL


PS
BP202
BP203
BP204
BR-CHASSIS
LP202
IP250
PP267
CONVERGENCE POWER SUPPLY +V=15.7V
+V
DP201
Fuse with permanent 230 V ~
FP201
T2.5A L
LP201
BP201A
BP201B
BP201
TP220
S
G
D
LP208
BP208
LP210
LP250
DP267
BP260
+49V
-49V
-15.7V
+15.7V
+5V
+V=15.7V CONVERGENCE POWER SUPPLY

MC-Service

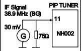
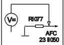
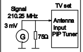
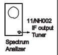
RP C19
First issue 07 / 98

ADJUSTMENTS - REGLAGES - EINSTELLUNGEN - REGOLAZIONE - AJUSTES

U Sys	SERVICE MODE	Standard TV - Settings : ☼ + ◕ + ◑ = 50% TV to AV1 : Black test pattern		see table below
(PS) Convergence Power Supply	PP67	Standard TV - Settings : ☼ + ◕ + ◑ = 50%		Adjust PP67 : V=15.7V +/- 0.1V
(MAIN) IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) TUNER 11 30 mV G 75Ω NH01		Adjust FI30 / PI54 for 2,5VDC +/-0.1V
(MAIN) VIDEO-LEVEL Alignment	PI030 PI035	 Standard Signal (BG / L) 15kHz test pattern TV set Antenna 3 mV G 75Ω		Adjust PI030 : standard BG Adjust PI035 : standard L V = 0,7 Vpp (Black/white level)
H - VCO	SERVICE MODE	See Adjustment in Service Mode (GEOMETRY Menu)		
(DCU) Vertical Power Stage Zero	SERVICE MODE V POSITION	Standard TV - Settings : ☼ + ◕ + ◑ = 50%		DC Voltage - V to minimum. (=0 if possible)

TUBE NAME	DESCRIPTION	Usys jumper	Usys
RP - 4/3 RP - 16/9	4/3 46" - 52" 16/9 46" - 52"	JP915	134V +/- 0.5V

RF / IF PART FEP 19100 PIP

IF Alignment VCO Standard BG	FI030	Switch set to standard BG  IF Signal 38.9 MHz (BG) PIP TUNER 11 30 mV G 75Ω NH002		Adjust FI30 for 2,5VDC +/-0.1V
TUNER-AGC	PI050	 Signal 210.25 MHz TV set Antenna input PIP Tuner 3 mV G 75Ω		Adjust PI050 : Maximum level Reduce level with PI50 about 10dB.

U G2 - DEFLECTION YOKE POSITION - CENTERING MAGNETS

To gain access to the Red, Green and Blue G2 Controls, Deflection Yokes or the Adjustment Magnets, proceed as follows :
- Using a suitable screwdriver push the front panel fixing button in the direction shown (Fig 1).
- Carefully pull down the front panel and remove it as shown and store safely.

Pour accéder aux réglages de G2 Rouge, Vert et Bleu , aux déviateurs ainsi qu'à leur aimant de réglages, appuyer en vous aidant d'un tournevis sur l'ergot de maintien du coffret de face avant dans le sens de la flèche et rabattre puis déposer le coffret (Fig.1).

Um Zugang zu den G2-Einstellern (Rot, Grün, Blau), Ablenkeinheiten und Ausgleichsmagneten zu erhalten
- drücken Sie mit einem passenden Schraubendreher den Befestigungsknopf der Frontabdeckung in die angegebene Richtung (Fig.1).
- ziehen Sie die Frontabdeckung vorsichtig nach unten und entfernen sie wie angegeben.

Per accedere alle funzioni controlli G2 Rosso, Verde e Blu, giogo di deflessione e regolazione magneti, procedere come indicato, con un apposito cacciavite, premere i tasti di fissaggio del pannello frontale come indicato nella figura (Fig.1).
Piegare il pannello con cura e fissarlo come descritto.

Para tener acceso a los ajustes G2 del Rojo, Verde y Azul, así como a los Yugos de Deflexión y a sus imanes de ajuste, procede como sigue.
- Utilizando un destornillador adecuado, empujar el botón de fijación del panel frontal en el sentido indicado en la Fig.1.
- Tirar hacia abajo con cuidado del panel frontal y retirarlo como se muestra en la figura.

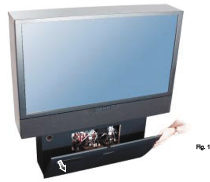
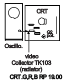
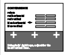


Fig. 1

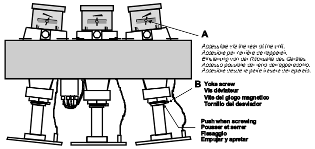
(CRT) U G2 METHOD 1 Measurment method	G2 potentiometer G2 Red : PV101 G2 Blue : PV201 G2 Green : PV301	Standard TV - Settings : ☼ + ◕ + ◑ = 50% TV to AV1 : Black test pattern	 CRT G2 pot. Oscillo. video Collector TK103 (radiator) CRT.G,R,B RP 19.00	CRT 1 - Adjust VG2 CRT. R : V= 180V 2 - Repeat for : CRT G , CRT B.
METHOD 2 Cutoff counter method SERVICE MODE	SERVICE MODE	Standard TV - Settings : ☼ + ◕ + ◑ = 50% No test pattern (generated by internal text processor).	SERVICE MODE Call up VIDEO alignment menu Initially set R_Cut-off and G_Cut-off to 80H. Select G2 Alignment in Service Mode Adjust the 3 G2 Pot. on 3 CRT Boards for R=28; G=28; B=28 Select "Restore" in Service Mode and press "OK" to restore the cut-off values.	

DEFLECTION YOKE POSITION	Yoke Déviateur	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◑ = 50%	👁 Horizontal line
GREEN DEFLECTION YOKE POSITION	(GB)	- Loosen the deflection yoke securing screw B (See Fig.1 p.19). - Rotate the deflection yoke until the centre line of the grid pattern is horizontal. - Whilst push the deflection yoke hard up against the tubes bulb, tighten the securing screw B with a non-magnetic driver to a torque of 125 +/- 10cm.Newton's .	- Rotate the Green deflection yoke.
POSITION DEVIATEUR VERT	(F)	- Dessérer la vis de blocage B (Fig. 1 p.19). - Tourner le déviateur pour obtenir la ligne centrale de la mire la plus horizontale possible. - Pousser le déviateur dans la direction du col, et serrer la vis de blocage B avec un outil non magnétique (125 +/- 10cm.N de couple) . (Voir Fig. 1. p.19).	- Tourner le déviateur Vert.
POSITION DER ABLENKEINHEIT FÜR GRÜN	(D)	- Lösen Sie die Schraube B der Ablenkspule (Siehe Fig. 1 Seite 19). - Drehen Sie die Ablenkeinheit so, daß die Mittellinie des Gitters horizontal verläuft. - Drücken Sie die Spule fest in Richtung Röhrenkörper, wenn Sie die Schrauben mit einem nichtmagnetischen Werkzeug anziehen (125+/- 10 N/cm Drehmoment) (Siehe Fig. 1 Seite 19).	- Drehen Sie die Ablenkeinheit für "Grün"
POSIZIONE DEL GIOGO DI DEVIAZIONE MAGNETICA VERDE.	(I)	- Svitare la vite B del giogo magnetico (Vedere illustrazione a pag.19). - Ruotare il giogo di deviazione magnetica in modo che la linea centrale della griglia sia orizzontale. - Spingere energicamente il gioco magnetico verso il bulbo del tubo e serrare la vite del giogo con un utensile non magnetico(utensile dinamometrico 125 +/- 10cm.). Vedere illustrazione 1 a pag.19.	- Ruotare il giogo di deviazione magnetica Verde.
- POSICIÓN DEL DESVIADOR VERDE.	(E)	- Afloje el tornillo B del desviador (véase el dibujo 1, página 19). - Gire el desviador para que la línea central de la rejilla esté horizontal. - Empuje el desviador con fuerza en la dirección de la bombilla del tubo y ajuste el tornillo del desviador con una herramienta no magnética (125+/-10 cm.N, véase par). Vea el dibujo,página 19.	- Gire el desviador verde.
RED AND BLUE DEFLECTION YOKE POSITION	(GB)	- Cover the Blue Lens. - Loosen the RED deflection yoke securing screw B and rotate the deflection yoke until the red horizontal centre line is parallel with the green line and tighten the securing screw. - Cover the RED lens and repeat the process for the BLUE deflection yoke.	- Rotate the red and Blue deflection yoke.
POSITION DEVIATEUR ROUGE ET BLEU	(F)	- Couvrir l'objectif du tube Bleu. - Tourner le déviateur Rouge (voir ci-dessus) pour avoir la ligne centrale horizontale Rouge parallèle à celle de la ligne verte. - Faire de même pour le Bleu.	- Tourner les déviateurs Rouge et Bleu.
POSITION DER ABLENKEINHEITEN FÜR ROT UND BLAU	(D)	- Decken Sie die blaue Linse ab - Drehen Sie die "rote" Ablenkeinheit (wie oben beschriebenen) so, daß die rote Mittellinie parallel zu der grünen verläuft. - Verfahren Sie so auch mit der "blauen" Einstellung.	- Drehen Sie die Ablenkeinheiten für "Rot" und "Blau"
- POSIZIONE DEL GIOGO DI DEVIAZIONE MAGNETICA ROSSO E BLU.	(I)	- Coprire le lenti blu - Ruotare il giogo di deviazione magnetica Rosso (vedere la procedura descritta in precedenza) in modo che la linea centrale Rossa sia parallela alla linea Verde. - Seguire la medesima procedura per il giogo di deviazione magnetica Blu.	- Ruotare il giogo di deviazione magnetica Rosso e Blu.
- POSICIÓN DEL DESVIADOR ROJO Y AZUL.	(E)	- Cubra la lente azul - Gire el desviador rojo (véase el proceso anterior) para colocar la línea central horizontal roja paralela a la verde. - Siga el mismo proceso con la azul.	- Gire el desviador rojo y azul.

		TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◑ = 50%	👁 ⇄
MAGNETIC CENTERING OF GREEN RED BLUE PICTURE	Centering magnets	1 - Set all bargraphs of convergence static adjustments to center.	- Center the green grid with the centering magnets. - After adjustments realign H AMP in Service Mode. - Do the same process for Blue and Red. - After the adjustment fix the centering magnets with a "neopren" paste.
CENTRAGE MAGNETIQUE DES IMAGES VERTE, ROUGE ET BLEUE	Aimants de réglages	1 - Positionner les bargraphs de réglages de convergence statique à mi-course.	- Centrer la grille verte avec les aimants de réglages. - Après réglage réaligner H AMP dans le Service mode. - Procéder de même pour le Bleu et le Rouge. - Fixer les anneaux avec une colle de contact ("néoprène").
MAGNETISCHE ZENTRIERUNG DES GRÜNEN, ROTEN UND BLAUEN BILDES	Zentrier-magnete	1 - Stellen Sie alle Anzeigebalken der Statischen Konvergenzeinsteller auf Mittelstellung.	- Zentrieren Sie das grüne Gitter mit den Zentriermagneten. - Nach diesen Einstellungen stellen Sie die Horizontal-amplitude im Service-Mode ein. - Verfahren Sie so auch mit Blau und Rot. - Nach der Justierung fixieren Sie die Zentriermagnete mit einer "Neopren-Paste"
	Centrare i magneti.	1 - Regolare al centro tutte le barre grafiche delle regolazioni di convergenza statica.	- Centrare la griglia verde utilizzando i magneti di centratura. - Dopo avere effettuato le regolazioni riallineare H AMP nel Service mode. - Seguire la medesima procedura per il giogo magnetico rosso e blu. - Dopo avere effettuato le regolazioni fissare i magneti di centratura con pasta di policloroprene.
	Imanes de centrado.	1. Fije todos los gráficos de barras de ajuste estáticos de convergencia en el centro.  CONVERGENCE INSTALLATION MENU Press "INSTALL" on the RC keyb 2 - SERVICE MODE : GEOMETRY : H AMP.	- Centre la rejilla verde con los imanes de centrado. - Después de realizar los ajustes, alinee de nuevo H AMP en modo servicio. - Lleve a cabo el mismo procedimiento para azul y rojo. - Después del ajuste, fije los imanes de centrado con una pasta de neopreno.

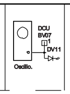
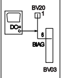
FOCUS	TV : AV1 Test pattern ▦ Standard TV - Settings : ☼ + ◕ + ◑ = 50%	👁 Sharp picture
(MAIN) FOCUS Red FOCUS Blue FOCUS Green FOCUS Rouge FOCUS Bleu FOCUS Vert FOKUS Rot FOKUS Blau FOKUS Grün	FOCUS Block Optical Focus Bloc optique Optical Focus Optical Focus Optical Focus	(GB) **1 - FOCUS Red** - Cover booth the Green and Blue lenses. - Adjust the focus of the red line with the associated focus potentiometer on the Focus Block. **2 - FOCUS Green and Blue** - Repeat the procedure outlined above for both the green and blue lenses. - When adjusting the Blue lens optimise the focus of the left-hand vertical lines. OPTICAL FOCUS: *Access for optical focus adjustment is via the rear of the unit.* - Loosen the lenses small locking wing nut (A) (see figure 1.) - Finely adjust the optical focus, compromising the focus between the centre and corners. - Tighten the small locking wing nut.
		(F) **1 - FOCUS Rouge** - Couvrir les tubes Vert et Bleu. - régler la concentration des lignes rouges avec le potentiometre de Focus . FOCUS OPTIQUE :*Réglage effectué par l'arrière de l'appareil.* - Dessérer les ailettes de blocage (A) (voir figure ci-dessous). - Tourner la lentille pour obtenir un réglage fin: compromis entre centre et coin. - Serrer les ailettes de blocage du bloc optique. **2 - FOCUS Vert et Bleu** répéter la totalité de la procédure pour les tubes vert et Bleu. Pour la concentration de l'optique Bleu optimiser le réglage sur une ligne verticale à gauche de l'écran .
		(D) **1 - FOKUS Rot** - Decken Sie die grüne und die blaue Linse ab. - Stellen Sie den Fokus der roten Linien mit dem entsprechenden Fokuspotentiometer auf dem Fokusblock ein. OPTISCHER FOKUS :*Die Einstellung des optischen Fokus kann von der Rückseite des Gerätes vorgenommen werden.* - Lösen Sie die kleinen Flügelmutter (A) an der Linse (siehe Abb. 1). - Stellen Sie vorsichtig den optischen Fokus ein: Suchen Sie einen Kompromiß im Fokus der Bildmitte und der Bildecken. - Ziehen Sie die Flügelmuttern wieder an **2 - FOKUS Grün und Blau** Wiederholen Sie die oben beschriebenen Einstellungen für Grün und Blau. Bei der Einstellung des optischen Fokus Blau optimieren Sie die senkrechten Linien am linken Bildrand.
		(I) **1 - FUOCO Rosso** - Coprire le lenti verde e blu. - Regolare il fucco delle linee rosse utilizzando il potenziometro sul blocco della messa a fuoco. FUOCO OTTICO: Regolazione effettuata dal retro dell'apparecchio. - Svitare le alette (A) (Vedere illustrazione 1). - Mettere a punto il fuoco ottico: mantenendoun compromesso tra centro e angolo. - Fissare le alette del blocco ottico. **2 - FUOCO VERDE E blu** - Ripetere l'intera procedura per la messa a fuoco verde e blu. - Per il fuoco ottico blu ottimizzare la linea verticale sinistra.
		(E) **1 - FOCO rojo:** - Cubra las lentes verde y azul. - Ajuste el foco de las líneas rojas con el potenciómetro de las mismas en el bloque de foco. FOCO ÓPTICO :*El ajuste del enfoque óptico se realiza desde la parte trasera del aparato.* - Aflojar la lente con la tuerca (A) (ver fig.1) - Ajustar el enfoque óptico, manteniendo un compromiso entre el centro y las esquinas. - Fijar la lente con la tuerca. **2 - FOCUS Green and blue** Repeat the whole procedure for green and blue. For Blue optical focus optimize the vertical left line.

OPTICAL BLOCK :
BLOC OPTIQUE :
OPTISCHE EINHEIT :
BLOCCO OTTICO :
BLOQUE ÓPTICO :



A
Accessible via the rear of the unit.
Accessible par l'arrière de l'appareil.
Einstellung von der Rückseite des Gerätes
Accesso possibile dal retro dell'apparecchio.
Accesible desde la parte trasera del aparato.
B
Yoke screw
Vis déviateur
Vite del giogo magnetico
Tornillo del desviador
Push when screwing
Pousser et serrer
Fissaggio
Empujar y apretar

Fig. 1

(DCU) DIGITAL CONVERGENCE UNIT		☼ + ◕ = 50% ◑ = 100% ▣ white= 100% blanc= 100%		Control CUT-OFF and DRIVE adjustment (Service Mode p.26) Contrôler les réglages de CUT-OFF et DRIVE (Mode Service p.26) Abgleich der CUT OFF-und DRIVE-Einstellungen (siehe Service Mode S.26) Controllare la regolazione CUT-OFF e DRIVE (Vedere Service Mode a pag.26). Ajustes de CUT-OFF y DRIVE (modo de servicio, pag. 26)
Peak Limiter Blue Peak Limiter	PV03 PV04	- Turn **PV03** fully clockwise and **PV04** fully anticlockwise. - Slowly turn **PV04** clockwise until the voltage **V=0.95V**, if this voltage cannot be reach then rotate **PV03** slightly anticlockwise and repeat adjustment of **PV04** until **V=0.95V**. - Now adjust **PV03** so that **V=0.85V** and readjust **PV04** for a limit of **V=0.95 V**. - Tourner à fond **PV03** dans le sens des aiguilles d'une montre. - Tourner à fond **PV04** dans le sens **inverse** des aiguilles d'une montre, puis augmenter doucement jusqu'à **V=0.95V**. (Si on ne peut pas atteindre **0.95V** tourner un peu **PV03** pour que le réglage soit possible). - Régler ensuite **PV03** pour **V=0.85V**. et retoucher **PV04** à la limite de **V=0.85V** - Drehen Sie den Regler **PV03** an den Rechtsanschlag. - Drehen Sie den Regler **PV04** an den Linksanschlag und stellen Sie dann langsam **0,95 V** ein. (Wenn keine **0.95 V** erreicht werden können, drehen Sie bitte leicht an **PV03**, so daß die Einstellung erreicht werden kann). - Dann pegeln Sie mit **PV03 0,85 V** ein und justieren mit **PV04** die Grenze von **0,95 V**. - Girare a fondo in senso orario **PVO3**. - Girare a fondo in senso antiorario **PVO4**, quindi aumentare lentamente fino a **V=0,95V**. (Se non si riesce a raggiungere **0.95V**, girare leggermente **PV03** per consentire la regolazione). - Regolare poi **PVO3** al valore di **V=0.85V** e regolare ancora **PV04** al limite di **V=0,95V**. - Gire **PV03** al máximo en el sentido de las agujas del reloj. - Gire **PV04** al máximo en sentido contrario al de las agujas del reloj y después aumente suavemente hasta que **V=0.95 V**. (Si no puede alcanzar **0.95V**, gire un poco **PV03** para posibilitar el ajuste). - Ajuste a continuación **PV03** para que **V=0.85V** y reajuste **PV04** hasta el límite de **V=0.95 V**		
DC-Compensation level (blue gamma) adjustment Réglage du niveau de compensation (Gamma bleu) Einstellung DC-Kompensations-Pegel (Blau Gamma) Regolazione livello di compensazione DC (gamma blu). Ajuste de nivel de compensación DC (gamma azul)	PS01	☼ + ◕ + ◑ = 50% AV1 : No signal		**1- Jumper BS02 ⟶ BS01** -Record the voltage value V -Noter la valeur de la tension V -Notieren Sie den Wert Spannung V -Notare il valore della tensione V -Anotar el valor de la tensión V } 2.0V < V < 3.0V **2- Jumper BS02 ⟶ BS03** -Adjust PS01 to obtain V on Pin BV20. - Régler PS01 pour obtenir V sur BV20 -Stellen Sie an BV20 mit dem Einsteller PS01 die Spannung V ein. -Regolare PS01 per ottenere V su pin BV20. - Ajuste PS01 para obtener V en 1 de BV20.. *After the adjustment leave BS02 to BS03.* *Après réglage laisser BS02 connecté à BS03.* *Nach der Einstellung lassen Sie BS02 auf BS03* *Dopo avere effettuato le regolazione separare BS02 e BS03.* *Después del ajuste, deje BS02 a BS03*
GEOMETRY adjustments	SERVICE MODE	See adjustment in Service Mode (GEOMETRY Menu) Siehe Abgleich im Service Mode (GEOMETRY Menü)		
COLOUR adjustments		See adjustment in Service Mode (VIDEO Menu) Siehe Abgleich im Service Mode (VIDEO Menü)		
CONVERGENCE KONVERGENZ CONVERGENZA CONVERGENCIA	SERVICE MODE	See adjustments in "Service Mode (Convergence Alignment Menu) ". Siehe Abgleich im Service Mode (CONVERGENCE Menü)		

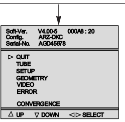
I - ENTER/EXIT SERVICE MODE - ENTREE/SORTIE DU MODE SERVICE - EIN-UND AUSSTIEG SERVICE MODE - ACCESSO/USCITA ALLA/DALLA FUNZIONE - ENTRADA/SALIDA MODO SERVICIO

SERVICE MODE (GB)

1 ACCESSING THE SERVICE MODE

TV Control Panel Access

- Switch "Off" the mains supply to the TV .
- Whilst holding depressed the **PR-** and **VOL-** on the projector keyboard, switch "On" the mains supply to the TV.
- Once initialised, the Main Service Menu will appear on the screen of the TV.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Note :

In service mode :
- *The child lock function is re-initialised*
- *The lock function (PIN Number) is ignored.*
- *All Wake-up/Sleep timer settings are cleared.*
- *SCART socket pin 8 switching voltages is ignored.*
- *AV- Link WSS detection , EPG and Teletext functions are disabled.*
- *Automatic standby mode switching functions (no conditions) are disabled.*
- *Brightness, Colour and Contrast are set to factory settings.*
- *Sharpness settings are set to MID position.*
- *Contrast expander is set to low.*
- *Automatic Install mode is disabled.*
- *Format and Zoom are reset to factory defaults.*

2 TEMPORARY EXIT FROM SERVICE MODE

- Press the "Exit" button on the RCU.
- Pressing the "Men" button on the RCU will active the customer menus.

- The Service Menu can be re-entered by pressing the "Blue" button on the RCU.

3 EXITING FROM SERVICE MODE

Remote Control / **TV Control Panel** → - Select the "QUIT" line of the "Main Service Menu.
→ - Press «<», «OK» or «>» button / - Press «VOL.+»button → - TV mode.

"On/Off" or "Standby" buttons → - RCU "Standby" button or switch "Off" mains supply

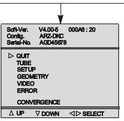
Values or adjustments not stored before exiting the service mode will not be saved in the NVM

MODE SERVICE (F)

1 ACCES AU MODE SERVICE

Accès avec le clavier du téléviseur

- Arrêter le TV avec la touche **M/A.**
- Tout en appuyant sur les touches **PR - et VOL - ,** mettre le TV en service à l'aide de la touche **M/A.**
- Maintenir enfoncées les touches **PR - et VOL -.**
Le menu suivant apparaît.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Note :

En mode service:
- *Le verrouillage parental est effacé (réinitialisé).*
- *La fonction de verrouillage (Pin number) est ignorée.*
- *La programmation des heures «reveille/matin» est annulée.*
- *Possibilité de passer en mode service avec commutation lente active.*
- *AV- Link , la détection WSS, l'EPG et le Vidéotexte ne sont pas validés.*
- *La fonction de stand-by automatique en cas d'absence de signal d'antenne n'est pas validée.*
- *Les valeurs de réglages usine sont affectées au contraste, à la couleur et à la lumière.*
- *Le contour est appelé à sa valeur moyenne.*
- *L'expansion contraste est au niveau bas.*
- *Le mode d'installation et l'ambiance «Light sensor» ne sont pas valides.*
- *Zoom et format ignorées.*

2 SORTIE TEMPORAIRE DU MODE SERVICE

- Utiliser la touche Exit de la télécommande.
- Le menu utilisateur peut être accessible via la touche «Menu».

- Pour entrer à nouveau dans le mode service utiliser la touche bleue.

3 SORTIE DEFINITIVE DU MODE SERVICE

télécommande / **clavier du téléviseur** → - Aller au point «QUIT» dans le menu principal du mode service.
→ - Appuyer sur «<», «OK» ou «>» / -Appuyer sur «VOL+» → - Mode TV.

Inter M/A ou Stand-by → - Foncion Stand-by ou «off» par M/A

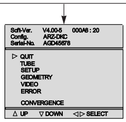
Les valeurs ou réglages non mémorisées avant la sortie ne seront pas écrites en NVM.

SERVICE - MODE (D)

1 EINSTIEG IN DEN SERVICE MODE

Zugriff über die Tastatur des Fernsehgeräts

- Fernsehgerät über die EIN/AUS - Taste ausschalten.
- Gleichzeitig die Tasten PR- und VOL- drücken und den TV über die EIN/AUS-Taste einschalten.
- Die Tasten PR- und VOL - gedrückt halten.


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Anmerkung :

Im SERVICE MODE :
- *wird die Sperrfunktion (PIN-Nummer) ignoriert und die Kindersicherung gelöscht (reinitialisiert).*
- *werden alle Ein- und Ausschaltzeitgeber gelöscht.*
- *wird die SCART - Schaltspannung ignoriert.*
- *werden AV- Link WSS, EPG und Videotext gesperrt*
- *wird die Automatische Abschaltung bei fehlendem Antennensignal gesperrt.*
- *werden Kontrast, Farbe und Helligkeit auf Standardwerte gesetzt.*
- *wird die Bildschärfe auf Mittelstellung gesetzt.*
- *wird der Kontrast-Expander auf "gering.." gesetzt.*
- *wird der Installations-Modus gesperrt.*
- *wird das Standardformat bzw. der Standard-Zoom-Modus gewählt.*

2 VORÜBERGEHENDES VERLASSEN DES SERVICE MODE

- Auf der Fernbedienung EXIT drücken.
- Mit der Taste Menü gelangen Sie zum Übersichts menü.

- Mit der blauen Taste gelangen Sie zum Service-Menü .

3 ENDGÜLTIGES VERLASSEN DES SERVICE MODE

Fernbedienung / **TV-Bedienfeld** → - Wenn der Zeiger im Hauptmenü des Service-Modus auf BEENDEN steht
→ - Taste «<», «OK» oder «>»drücken / -Taste «VOL+» drücken → - TV Modus

EIN /Aus - Taste → - Mit Standby-Funktion oder EIN/AUS - taste ausschalten

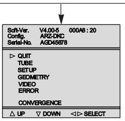
Werte und Einstellungen, die nicht vor dem Verlassen des Service-Modus gespeichert wurden, werden nicht in den Permanentspeicher übernommen

SERVICE - MODE (I)

1 ACCESSO AL SERVICE MODE

tramite i comandi del televisore

- Spegnere il TV mediante il pulsante ON/OFF.
- Premere i tasti **PR- e VOL-** accendendo il TV con il pulsante ON/OFF.
- Premere i pulsanti **PR - e VOL -.**


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Nota :

Nel service mode:
- *la funzione Blocco (Numero Pin) viene ignorata e la funzione Blocco Bambini è reinizializzata.*
- *Cancella la programmazione sveglia*
- *Il piedino 8 della scart viene ignorato.*
- *I riconoscimenti AV-Link WSS, EPG e televideo vengono disabilitati.*
- *Funzione automatica di standby, nel caso di mancanza del segnale d'antenna viene disabilitata.*
- *Contrasto, colore, luminosità : regolazioni di fabrica.*
- *Nitidezza: media (nominale)*
- *Espansore contrasto troppo basso.*
- *IModo Install disabilitato.*
- *Formato default e zoom.*

2 USCITA TEMPORANEA DAL SERVICE MODE

- Premere Exit sul telecomando.
- Al menu di uso quotidiano si accede attraverso il pulsante Menu.

- É possibile rientrate nel Menu Field Service attraverso il pulsante Blue.

3 USCIRE DAL SERVICE MODE

telecomando / **Panello controllo TV** → - Andare al punto QUIT nel Modo Field service del Menu principale
→ - Premere «<»,«OK» o «>» / - Premere «VOL.+» → - Modo TV.

Tasto on/off di → - Funzione Stand-by o «off» con il tasto on/off

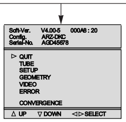
Valori e regolazioni non vengono memorizzati prima di uscire dal Modo service e non vengono scritti nell'NVM

MODO SERVICIO (E)

1 ACCESO AL MODO SERVICIO

Acceso panel control TV

- Apague la TV con el botón MARCHA:PARADA.
- Pulse los botones **PR - y VOL -** y sin soltarlos,pulsar la tecla MARCHA:PARADA.
- Libere los botones **PR - y VOL - .**


Soft-Ver. V4.00-5 000A8 : 20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT

Nota :

En modo servicio:
- *Se ignora la función de bloqueo y se inicializa la función "cerradura ninos".*
- *Anula todos las horas programedas*
- *La patilla 8 del SCART es ignorada*
- *La detección WSS AV Link, EPG, y Teletexto son desactivados.*
- *El apagado automático en caso de ausencia de señal de antena es desactivado.*
- *El contraste,color y brillo son puestos a los valores de fábrica.*
- *la nitidez es puesta al punto medio.*
- *La expansión de contrast al nivel bajo*
- *Modo Instalación es desactivado.*
- *Zoom y formato ignorados.*

2 SALIDA TEMPORAL DEL MODO SERVICIO

- Pulse Salir en el mando a distancia
- Con el botón Menu puede acceder al menú de uso cotidiano.

- Puede entrar al Menú Servicio con el botón azul.

3 SALIDA DEL MODO SERVICIO

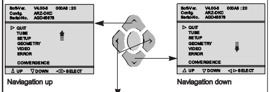
telecomando / **Panel de control TV** → - Vaya al punto QUIT del menú principal de modo Servicio
→ - Pulse el botón «<»,«OK» o «>» / - Pulse el botón«VOL.+» → - Modo TV.

Tecla on/off de → - Función Stand-by o desconexión (off) con tecla on/off.

Los valores o ajustes no se guardan antes de salir del modo servicio y no se escriben en el NVM

II - NAVIGATION INSIDE THE SERVICE MODE - DEPLACEMENT DANS LE MODE SERVICE NAVIGATION IM SERVICE MODE - OPZIONI NEL SERVICE MODE - BUSQUEDA EN MODO SERVICIO

1 REMOTE CONTROL - TELECOMMANDE - FERNBEDIENUNG TELECOMANDO - MANDO A DISTANCIA

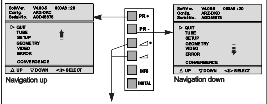

Soft-Ver. V4.00-5 000A8 :20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
Naviagation up
Naviagation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

- "Change" value
- Wert "ändern"
- "Cambiare" valore
- "Cambiar" valor

> → VALUE ↗
< → VALUE ↘

2 TV CONTROL PANEL - CLAVIER TV - TASTATUR DES FERNSEHGERÄTS - COMANDI DEL TELEVISORE -


Soft-Ver. V4.00-5 000A8 :20
Config. ARZ-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
PR +
PR -
INFO
INSTAL
Navigation up
Navigation down

- Select option
- Option anwählen
- Selezionare l'opzione
- Seleccionar opción

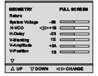
- "Change" value
- Wert "ändern"
- "Cambiare" valore
- "Cambiar" valor

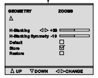
Vol. + → VALUE ↗
Vol. – → VALUE ↘

Changing page - Changement de page Seitenwechsel - Cambiare Pagina - Cambio de página

End of page
Fin de page
Am Seitenende
Fine della pagina
Fin de página

Beginning of Page
Début de page
Am Seitenanfang
Inzio della pagina
Comienzo de página


GEOMETRY FULL SCREEN
Return
System Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

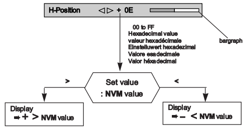

GEOMETRY ZOOM0
△
H-Blanking ◁▷ +3B
H-Blanking Symmetry -19
Default
Store
Restore
△ UP ▽ DOWN ◁▷ CHANGE

« ▽ »
Indicates a following page
Signifie qu'une page suit.
Bedeutet, daß eine Seite folgt
Indica una pagina seguente
Indica una página siguiente

« △ »
Indicates a preceding page
Signifie qu'une page précède.
Bedeutet, daß eine Seite vorangeht
Indica una pagina precedente
Indica una página precedente

- The menu turns the page when the cursor reaches the arrow.
- Amener le curseur sur la ligne repérée par« ▽ » ou « △ » pour passer à la page qui précède ou qui suit.
- Cursor nach « ▽ »,« △ » zum Seitenwechsel
- Il cursor su « ▽ »,« △ » cambia pagina.
- Cursor en « ▽ » ,« △ » cambia las páginas

3 DISPLAYING THE VALUE OF THE SETTING - AFFICHAGE DES VALEURS - ANZEIGE DES EINSTELLWERTES VISUALIZZAZIONE DEL VALORE DELLA REGOLAZIONE - VISUALIZACION DEL VALOR DE AJUSTE


H-Position ◁▷ + 0E
00 to FF
Hexadecimal value
valeur hexadécimale
Einstelluwert hexadezimal
Valore esadecimale
Valor héxadecimal
bargraph
>

Set value
: NVM value

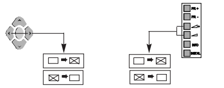
Display
➡ + > NVM value

Display
➡ – < NVM value

4 TOGGLE FUNCTIONS - VALIDATION DES FONCTIONS UNSCHALT FUNKTIONEN - FUNZIONI DI COMMUTAZIONE - FUNCION CONMUTACION

To enable a function check (tick) ☒ the box.
Pour valider une fonction cocher ☒ la case correspondante
Zum Implementieren einer Funktion das Kontrollkästchen ☒ aktivieren (ankreuzen)
Per validare una funzione , (vistare) ☒ la casella
Para poner en fucionamiento una función verifique (señale) ☒ la casilla

☒ : Enable function ☐ : Disable function


☐ ➡ ☒
☒ ➡ ☐
☐ ➡ ☒
☒ ➡ ☐
PR +
PR -
INFO
INSTAL

5 STORING VALUES IN MEMORY - MEMORISATION DES VALEURS - SPEICHERN DER WERTE - MEMORIZZARE VALORI - VALORES ALMACENADOS EN LA MEMORIA

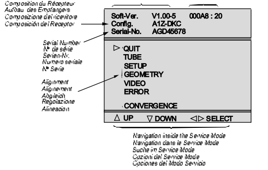
After setting, the values are stored in NVM.
Après réglages les valeurs sont mémorisées en NVM.
Nach dem Abgleich müssen die Werte im NVM gespeichert werden.
Dopo la regolazione i valori vengono memorizzati in NVM.
Después del ajuste, los valores son almacenados en NVM

The box ☐ becomes ☒
During alignment, values are temporarily stored in RAM.
En cours d'alignement les valeurs sont mémorisées temporairement en RAM
Während des Abgleichs werden die Werte vorübergehend im RAM gespeichert
Durante l'allineamento i valori vengono memorizzati provvisoriamente nella RAM
Durante el alineamento, los valores son almacenados temporalmente en RAM

Store ➡	Copies RAM values into NVM Copie la valeur RAM en NVM Kopieren der Werte von RAM nach NVM Copiare i valori RAM in NVM Copiar valores RAM en NVM
Restore ➡	Copies all values from NVM into RAM. Copie toutes les valeurs des données NVM en RAM Kopiert alle NVM-Datenwerte in den RAM Copiare tutti i valori da NVM nella RAM Copia todos los valores de NVM a RAM
ROM Default ➡	All the default values of a page in use are stored in RAM. L'ensemble des valeurs par défaut d'une page courante est chargé en RAM. Sämtliche Standardwerte der aktuellen Seite werden in das RAM geladen. Tutti i valori di default di una pagina in uso vengono memorizzati nella RAM Todos los valores por defecto de la página en curso están almacenados en RAM.

III - LITE-MENU FOR FIELD SERVICE MODE - MENUS DU MODE SERVICE - MENÜS IM SERVICE MODE

1 MAIN MENU - MENU PRINCIPAL - HAUPTMENÜ


Software Version
Version software
Software Version
Versione software
Versión software
Counter
Compteur
Zähler
Contador
Contatore
Chassis Configuration codes
Composition du Récepteur
Aufbau des Empfängers
Composizione del ricevitore
Composición del Receptor
Serial Number
N° de série
Serien-Nr.
Numero seriale
N° Serie
Alignment
Alignement
Abgleich
Regolazione
Alineación
Soft-Ver. V1.00-5 000A8 : 20
Config. A1Z-DKC
Serial-No. AGD45678
▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR
CONVERGENCE
△ UP ▽ DOWN ◁▷ SELECT
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Opciones del Modo Servicio

TV CONFIGURATION - CONFIGURATION DU TV - GERÄTEKONFIGURATION - CONFIGURAZIONE DEL TV - CONFIGURACIÓN DEL TV

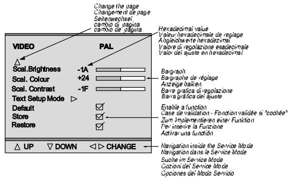
Config.	A1Z-DKC

Character 1 : Tube type : «A»= 4/3 , «W» =16/9
Character 2 : Chassis type : «5» = 50Hz, «1»= 100 Hz
Character 3 : Zoom available : «Z»=yes, «-»=not
Character 4 : Ambiant Sensor : «S»= detected, «-»= not
Character 5 : Dolby : «D»=detected, «-»= not
Character 6 : AV Link detected : «K»=IR link detected, «-»= not
Character 7 : Password mode: «C»= Password stored, «-»= not

TIME COUNTER - COMPTEUR DE TEMPS - ZÄHLER - CONTATORE - CONTADOR

The counter indicates the number of hours, (0 to 65535) the TV has been operating in hexadecimal notation.
Le compteur de temps indique le nombre d'heures de service du TV. Il compte de 0 à 65535 heures. L'affichage est en hexadécimal.
Der Zähler zeigt an, wieviele Stunden der Fernseher in Betrieb war. Die Anzeige ist hexadezimal.
Il contatore indica il numero di ore di funzionamento del TV. Puo' contare da 0 a 65535. La visualizzazione è esadecimale.
El contador indica el número de horas de servicio de la TV. Cuenta de 0 a 65535 horas. El visualizador es hexadecimal.

2 SUBMENU - SOUS-MENU - UNTERMENÜ


Change the page
Changement de page
Seitenwechsel
cambio di pagina
cambio de pagina
Hexadecimal value
Valeur hexadecimale de réglage
Abgleichwerte hexadezimal
Valore di regolazione esadecimale
Valor del ajuste en hexadecimal
VIDEO PAL
△
Scal.Brightness -1A
Scal. Colour +24
Scal. Contrast -1F
Text Setup Mode ▷
Default ☑
Store ☑
Restore ☑
△ UP ▽ DOWN ◁▷ CHANGE
Bargraph
Bargraphe de réglage
Anzeige balken
Barre grafica di regolazione
Barra gráfica del ajuste
Enable a function
Case de validation - Fonction validée si "cochée"
Zum Implementieren einer Funktion
Per inserire la Funzione
Activar una función
Navigation inside the Service Mode
Navigation dans le Service Mode
Suche im Service Mode
Opzioni del Service Mode
Opciones del Modo Servicio

ALIGNMENT PROCEDURE - PROCESSUS DE REGLAGES - ABGLEICH - VISUALIZZAZIONE DEL VALORE DI REGOLAZIONE - PROCEDIMIENTO DE ALINEACION

TUBE
Return
Tube type RP 4/3...
Store ◁▷ ☑
Restore ☐
△ UP ▽ DOWN ◁▷ SELECT

TUBE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on projectors front panel.

Tube type

After replacing the NVM, the correct tube type number must be entered . Once entered, the tubes geometry and video default values are immediately activated. Variable geometry and video parameters are written to the NVM when the "STORE" line is selected. See below the tube type number list.

Definit le tube exact après changement de NVM. Les nouvelles valeurs de tubes (avec video et géometrie) sont actives de suite. Les paramètres de vidéo et de géométrie sont chargés en NVM lorsque STORE est sélectionné. Voir liste ci-dessous.

Nach Tausch des NVM den Bildröhrentyp (6 Ziffern) auswählen. Die neuen Geometrie- und Video-Defaultwerte werden sofort aktiv. Variable Geometrie- und Videowerte werden durch Speichern mit "STORE" ins NVM geschrieben. Bildrohrauflistung : siehe unten.

Scegliere il tubo appropriato dopo aver sostituito la NVM; i 6 caratteri che indicano il nuovo tipo di tubo, richiamano i valori video e geometria di default. I parametri per video e geometria vengono caricati nella NVM

Definir el tubo correcto después de haber cambiado el NVM.6 caracteres.Los nuevos valores de tipo de tubo (con el video y la geometría por defecto) se activan inmediatamente. Los parámetros variables de geometría y video se graban en el NVM al seleccionar la función Store.Vea más abajo la lista de tubos.

List :
4/3; 16/9.
- Tube type RP 4/3 : RP C19 4/3
- Tube type RP 16/9 : RP C19 16/9

→ After setting → Store (+) ☑

SETUP
Return
OSD Position 80
PIN Erase ◁▷ ☑
Clear Progs.
Standard Pan-Euro ...
WSS ☑
EPG / AV Link ☑
▽
△ UP ▽ DOWN ◁▷ SELECT

SETUP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

OSD Position
Adjusts the position of all Megatext OSD..

PIN Erase Erases all PINs.
☑ PIN active ☐ No PIN active
Selection : Long press:
Press </>/OK: RCU or Vol. +/- :proj.front panel
Automatically stored.

Clear Prog.

Clears all programms stored in memory and resets all Picture and Sound settings to the factory defaults. The AUTO INSTALL (out of factory) mode can be initialised by a long press (>2.5s.) of the selection button.

Efface tous les programmes mémorisés. valeurs SON et IMAGES: valeurs usines. Pour sortir des valeurs usine : Selection : Long press (2,5s) sur la touche de sélection </>.

Löscht alle Programmplätze und setzt alle Bild- und Toneinstellungen auf Fabrikwerte zurück. Der AUTO-INSTALL-Modus kann durch einen langen Knopfdruck (>2,5s) initialisiert werden.

Clear Prog.
Cancella tutti i programmi in memoria e regola i Valori analogici SUONO IMMAGINE: ai valli di fabbrica. Riportare il TV al modo Selezione: pressione prolungata: 2,5 sec.

Programa de borrado.
Borra todos los programas almacenados en la memoria.Valores analógicos de IMAGEN y SONIDO: valores de fábrica.Regreso a la TV para "salir del modo fábrica".Selección: Presión larga igual a 2,5 s.

Standard "Pan-Euro" or "I".
BG PAL SECAM,L SECAM (France),
DKK' SECAM,NTSC M,I PAL (UK/IRELAND)

WSS

Automatic detection of DOLBY surround sound and 16/9 format pictures via Teletext line number 23 is valid on all programmes.

Détection automatique du son surround DOLBY et du format 16/9 via la ligne 23 du Télétexte. Valide pour tous programmes.

WSS (nur bei 16:9 oder Dolby)
Auswertung der Zeile 23 zur automatischen Format-und Dolbyumschaltung.

Identificazione "auto-surround" e "format" via televideo alla riga 23.La selezione di WSS Processing vale per tutti i programmi.

Detección "auto-surround" y "format" a través de la línea 23 de Teletext.La selección del procesamiento WSS es válida para todos los programas.

☑ Detection enable ☐ Detection disable

EPG / AV Link

Enables or disables the option to decode and display EPG program data.

Validation ou inhibition du décodage/affichage des données du programme EPG.

Zulassen oder Nichtzulassen von EPG.

Abilita o disabilita l'opzione di decodifica e visualizzazione dati programmi EPG.

Valida o inhibe la opción de descodificación y visualización de datos del programa EPG.

☑ Available ☐ Not available

SETUP
△
Text Lang.*/Bus Quiet* 1/☑
Subwoofer ☑
IR Download ▷
Reset Equ. ☑
Burn - In Protection ☑
Brand Thomson ...
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

* according to model

SETUP

Text. Lang. Teletext language :

0	1	2	3
English	Polish	English(US)	English
German	German	German	German
Swedish	Swedish	Swedish	Swedish
Italian	Italian	Italian	Italian
French	French	French	French
Portug.	Serbocroat	Portug.	Portug.
Czech/Slov.	Czech/Slov.	Czech/Slov.	Turkish.
-	Rumanian	English(UK)	-

Bus Quiet

In Bus Quiet, the NVM can be read, modified and reprogrammed by means of a NVM Programmer.
To access "Bus Quiet" : Long press ">".
The TV should remain in "Bus Quiet" mode until either Exit, Left, Right, Up,Down or Standby keys on the RCU or local keyboard are pressed; at which point the TV should carry out a warmstart in order to prevent differences between the NVM and RAM contents.
After returning from Bus Quiet, the software checks the NVM content.
If it is not valid, the software perform a new default writing of the NVM content.

En mode Bus Quiet la NVM peut être lue, modifiée et reprogrammée.
Accès au mode Bus Quiet :
Longue pression ">".
Utiliser l'une des touches Exit, Gauche, Droite Haut, Bas, standby ou une des touches du clavier pour sortir le téléviseur du mode bus quiet.
A partir de ce point de sortie le démarrage du téléviseur s'effectue à chaud pour éviter toute différence des contenus RAM et NVM.
En sortie de mode Bus Quiet, le logiciel contrôle le contenu de la NVM.
S'il n'est pas correct le logiciel exécute une nouvelle écriture par défaut de celle-ci.

Im "Bus Quiet"-Modus kann der Inhalt des NVM mittels eines externen NVM-Programmiergerätes ausgelesen, geändert oder neu programmiert werden. "Bus Quiet" wird einem längeren Druck auf ">" aktiviert.
Das Gerät bleibt solange im "Bus Quiet" - Mode, bis durch Druck auf die EXIT-, LINKS-, RECHTS-, HOCH-, RUNTER- oder STANDBY-Taste (am Gerät oder auf der Fernbedienung) ein Warmstart des Gerätes veranlaßt wird, um unterschiedliche Daten in RAM und NVM zu vermeiden.
Es folgt ein Software-Check des NVM-Inhaltes.
Sollte dieser nicht gültig sein, wird der Inhalt mit Default-Werten überschrieben.

In Modo Bus Quiet, la memoria NVM può essere letta, modificata o riprogrammata.
Per accedere al modo Bus Quiet premere a lungo il tasto ">".
Il TV dovrebbe rimanere in modo Bus Quiet fino a che vengono premuti i tasti Exit, o Destro Sinistro, Su o Giù o Standby dal telecomando o dalla tastiera locale; a questo punto il TV dovrebbe ripartire per evitare interferenze tra i contenuti della memoria NVM e della RAM.
All'uscita dal modo Bus Quiet, il software controlla il contenuto della memoria NVM. Se tale contenuto non è valido, il software provvede a una nuova programmazione della NVM con l'inserimento dei dati di default.

En bus quieto, la NVM puede ser leída, modificada y reprogramada.
Acceso a bus quieto : Larga presión en ">"
El TV permanecerá en bus quieto hasta que se pulse cualquiera de las teclas siguientes: Exit, "<", "Ÿ", "/", ">"o Standby del telemando o del teclado.
En este momento el TV arrancará para evitar cualquier diferencia entre los contenidos de la RAM y NVM.
Al salir del modo bus quieto, el software comprueba el contenido de la NVM.
Si no coincide, el software ejecuta la escritura de los datos en la NVM.

☑ Bus Quiet enable ☐ Bus Quiet disable

SETUP

Subwoofer

Enable the subwoofer on equiped set.

Validation du Subwoofer sur les appareils équipés .

Einschalten des Subwoofers (wenn vorhanden).

Abilita il subwoofer negli apparecchi eqipaggiati.

Validaciónde que existe el subwoofer.

☑ Subwoofer enable ☐ Subwoofer disable

IR Download

Download screen for receiving mapping via IR data.

Ecran de chargement pour réception "mapping" via IR data

Laden des Programmschemas per AV-Link

Trasferimento IR
Trasferire schermo per ricezione mappatura via dati IR

Descarga de IR
Pantalla de descarga para recibir el mapeado a través de los datos IR.

IR Download
Programme 00
Return / Abort ◁
IR Download active

"Programme 00" : function is active or finished.
Return / Abort : To exit/Abort the menu press "left" arrow key or Volume - key of keyboard.
All other IR commands have no response.

"Programme 00" : Fonction active ou finie.
Return / Abort : Pour sortir du menu appuyer sur la touche "gauche" ou "Volume -" du clavier.
Les autres commandes IR sont sans réponse;

"Programme00":Funktion ist aktiv oder beendet
"Return/Abort": Beenden oder Abbruch der Funktion durch Drücken der linken Pfeiltaste oder "Lautstärke-" am Gerät.Alle anderen Tasten haben keine Funktion.

Programma 00: la funzione è attiva o finita.
Return/Abort: per uscire dal menu, premere il tasto "sinistra" del telecomando o il tasto Volume- della tastiera.
Tutti gli altri comandi IR sono senza risposta.

"Programme00" : función activa o terminada.
"Return / Abort" : para salir / abortar, pulsar la tecla "flechaizquierda" o la tecla "volumen -" del teclado.
Todos los demás comandos IR son inoperantes

Reset Equ.	Reset Equaliser Not available Non disponible

Burn-in Protection

- To decrease the risk of marking the screen when displaying static images, the picture is continually displaced over a period of 2 hours by approximately 5 mm.
- Diminue le risque de marquage de l'écran sur image fixe par un déplacement de celle-ci de 5 mm toutes les 2h.et changement de programme.
- Um ein Einbrennen unbewegter Bilder in die Leuchtschicht zu verhindern, wird das Bild nach jedem Programmwechsel und zeitgesteuert alle 2 Stunden um etwa 5mm verschoben.
- Non visualizzare un'immagine fissa per più di due ore, nel caso, cambiare programma.
- Protege la pantalla contra marcas con imagen fija desplazándola 5 mm cada 2 horas y cambiando el programa

☑ Available ☐ Not available

Brand*
Set the "Brand": Thomson, Telefunken, Other
Factory adjusted
Reserve au reglage usine
Reserviert für Fabrikeinstellungen
Riservato alla regolazione di fabbrica
Ajuste reservado fábricas
Press </>: remote control; Vol. +/- : TV keyb.

GEOMETRY ZOOM 0
Return
System Voltage -3B
H-VCO ◁▷+1B
H-Delay -23
V-Blanking 1E
V-Amplitude +0A
V-Position 1B
▽
△ UP ▽ DOWN ◁▷ CHANGE

Test Bar pattern used : 4/3 with geometric circle. Adjust separate for 4/3 and 16/9 format. See annexed . Colour standard or RGB is autodetected and displayed opposite the displayed opposite the menu title.

GEOMETRY

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

System Voltage
Adjustment of the main system voltage is only possible via the local keyboard Vol +/- .
- Adjust Usys = 134V
(Adjustments Usys)

H-VCO Horizontal - VCO Oscilator.

Adjust the value of H-VCO until the speed of the unsynchronised picture becomes stable. (I.e minimum roll).

Agir sur H-VCO pour obtenir une image la plus proche de la synchronisation

H_VCO auf Schwebung abgleichen.

Regolare l'H_VCO finché l'immagine non sincronizzata non avrà raggiunto la velocità minima.

Ajuste H_VCO hasta que la imagen no sincronizada alcance su velocidad más baja.

default value = 0FH
Press </>: remote control; Vol. +/- : RP keyb.

H-Delay	Horizontal delay Use "+" and "-" to adapt the image

V-Blanking

1-Adjust V-Amp. for a 107% over scanned picture.
2-Reduce V-Blanking for visible lines top and bottom of screen.
3-Increase step by step V-Blank. until at the bottom and the cut- off lines on the top of the screen disappear.
4- Increase one more step
5-Next adjust V-Amp. and V-Position

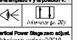
1-V-amp. amplitude verticale suffisante (>7% overscan)
2- Réduire V-blanking:visible en haut et bas.
3- Agir étape par étape jusqu'à disparition du blanking en bas d'image et des lignes de cut-off en haut d'écran
4- Augmenter d'une valeur.
5- Faire un réglage fin de V-amp. et V-position

1- Voreinstellung der V-amp auf: >7% Überschreibung.
2- Reduzieren Sie V-Blanking soweit bis die ersten geschriebenen Zeilen am oberen Bildrand sichtbar werden.
3- Erhöhen Sie V-Blanking Schritt für Schritt bis die Cut-Off Meßzeilen gerade am oberen Bildrand verschwinden.
4- Erhöhen Sie V-Blanking um eine Stufe.
5- Feineinstellung von V-Amp und V-Position.

1- Ampiezza verticale: grande a sufficiensa (7% di sovrascanzioni)
2- Riduzze il V-blanking per visualizzare le linee : alto e in basso dello schermo.
3- Aumentare passo/passo: finchè le linee di cut off nella parte alta dello schermo scompaiono.
4- Aumentare ancora di un passo
5- Regolare con precisione l'ampiezza e la posizione verticali.

1- Amplitud V: suficientemente grande (7% de sobreexploración)
2- Reducir el borrado V: visible en las partes superior e inferior.
3- Aumentar el paso a paso: el borrado en la parte inferior y las líneas de cut-off en la parte superior desaparecen.
4- Aumentar de otro paso.
5- Ajustar finamente la amplitud V y la posición V.

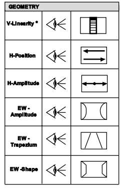
V-Amplitude


reference (p. 20)

V-Position Vertical Power Stage zero adjust.
(Adjustments : refer to RPC19 Service Manual Part : 350 845 90)

GEOMETRY ZOOM 0
△
V-Linearity -3B
H-Position ◁▷+0E
H-Amplitude -19
EW-Amplitude +1C
EW-Trapezium 2B
EW-Shape 1D
▽
△ UP ▽ DOWN ◁▷ CHANGE

GEOMETRY



GEOMETRY ZOOM0
△
Default ☐
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

page 3

→ After setting → Store (+) ☑

Default Values :

- U Sys. : 98	- V-Linearity * : 60
- H-VCO : 80	- H-Position : 78
- H-Delay : 80	- H-Amplitude : 78
- V-Blanking : A0	- EW-Amplitude : 8C
- V-Amplitude : 4E	- EW-Trapezium : 78
- V-Position : 80	- EW-Shape : 00

* - V-Linearity : 60= Fix value. Not to change.

IMPORTANT

Factory setting values are indicated on a label inside the optical block housing. These should be used in preference to the default values.

Les valeurs de réglages usines sont indiquées sur une étiquette située à l'intérieur du caisson bloc-optique.Elles sont à utiliser de préférences aux valeurs par défaut

Die Fabrik-Einstellwerte sind auf einem Aufkleber im Inneren des Gehäuses des Optischen Blocks angebracht.
Diese sollten den Defaultwerten vorgezogen werden.

I valori di regolazione di fabbrica vengono indicati su una etichetta collocata all'interno del contenitore del blocco ottico.
Questi valori devono essere utilizzati di preferenza ai valori di default.

Los valores de los ajustes de fábrica se indican en una etiqueta situada en el interior de la cubierta del bloque óptico. Son de utilización preferente a los valores por defecto

VIDEO PAL
Return
Norm. (Factory) ☑
G2 Alignment ▷
R-Cut off +1B
G-Cut off -1F
R-Drive +3A
G-Drive -3B
B-Drive 60
▽
△ UP ▽ DOWN ◁▷ CHANGE

VIDEO PAL

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

Norm. (Factory)

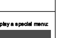
Recalls the factory settings for colour, brightness, contrast and sharpness and sets contrast expand to "low".

☑ Factory settings recalled
☐ User settings kept.

G2 Alignment

Display a special menu:

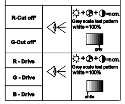
Initially set R_Cut-off and G_Cut-off to 80H.



RGB cut-off counters

Adjust the values with the 3 potentiometer on CRT boards to: R=28 G=28 B=28

To return video submenu:
Press </>/OK: remote control; Vol. +/- :RP keyb.
Select "Restore" to restore the cut off values.



Note :
* adjust separate for PAL/NTSC/SECAM and RGB/AV

→ After setting → Store (+) ☑

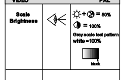
Default Values :

- R-Cut off : 70	- B-Drive : 64
- G-Cut off : B8	- Scale bright. : 90
- R-Drive : 54	- Scale colour : 94
- G-Drive : 94	- Scale contrast : BC

VIDEO PAL
△
Scale Brightness -1A
Scale Colour +24
Scale Contrast -1F
Text Setup ▷
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

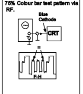
VIDEO PAL

Scale Brightness



Scale* Colour

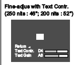
☼+◑+◐=nom.
PAL (then SECAM +RGB)
75% Colour bar test pattern via RF.

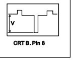


Scale Contrast Keep factory settings or default value

Text Set-up Mode

☼+◑+◐=nom.
Set Text Contr. to max. I Adjust Text Gain to get a light output of just V=80Vpp CRT B. Pin 8
Fine-adjus with Text Contr. (250 nits : 46"; 200 nits : 52")





CRT B. Pin 8

→ After setting → Store (+) ☑

ERROR
Return
Erase Error Codes ◁▷
CODE
11 000C3 : 20
24 008A0 : 21
78 0042A : 20
11 0023F : 20
51 000E3 : 00
UP ▽ DOWN ◁▷ CHANGE

ERROR CODE

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

Erase Error Codes	Clears all error codes stored in the NVM. Press and hold </>/OK buttons on the RCU or the VOL+/VOL- keys on the projector for more than 5s. (long press).
CODE	LED Error Codes

The last five error codes are stored and displayed as they occured in real time, the most recent error code is displayed on the top line. A repeated top line error code has its real time count updated. There are 27 different error codes, which are signalled by the TV's Standby LED, ranging in value from 11 to 49 hex. The error code is displayed as two separate digits separated by a suitable pause, this is repeated until the either the TV fixes the fault or the TV is repaired.
For example Error-code : 23 will be displayed thus :
2 flashes and a short pause
3 flashes and a long pause
....
List of Errors Codes : see table

Mémorise les cinq derniers codes erreurs et affiche en haut d'écran les plus récents.
27 codes erreurs différents sont signalés par deux digits selon une séquence spécifique
Exemple :
Code erreur : 23 affiché
2 flashes, courte pause
3 flashes : longue pause
....
Voir ci-contre la liste des codes erreurs

Zeigt die letzen 5 Fehlercodes mit der Laufzeit an. Der zuletzt aufgetretene Fehler steht an erster Stelle. Sollte ein Fehler wiederholt auftreten wird nur die Laufzeit aktualisiert.
Die Fehlercodes können im Menü Error Code angezeigt werden oder über die Kontroll LED angezeigt werden;

Beispiel für die Anzeige über die Kontroll LED:

Fehlercode 23 :
Zweimaliges Blinken der LED, kurze Pause.
Dreimaliges Blinken der LED, lange Pause.
Auflistung der Fehlercodes : siehe Liste

Memorizza gli ultimi cinque codici d'errore, tra cui il più recente viene visualizzato sulla prima riga, aggiornando la durata di esecuzione del codice stesso.
Dal Led del TV vengono segnalati 27 codici d'errore diversi, numerati da 11 a 44. Il codice d'errore è indicato da due cifre separate da un intervallo di tempo, che verrà ripetuto fino a quando il TV non sarà stato riparato o resettato.
Ad esempio:
Il codice d'errore 23 visualizzerà:
2 segnali luminosi con pausa breve
una pausa lunga
3 segnali luminosi con pausa breve
Per la lista dei codici d'errore, consultare la tabella.

Almacene los últimos cinco códigos de error cuando cada uno ocurre (gracias al contador de tiempo de ejecución). El error más reciente se visualiza en la parte superior. Una repetición del código de error en la parte superior de la lista solamente actualiza el tiempo de ejecución. El indicador TV LED indica 27 códigos de error diferentes: de 11 a 44. El código de error se señala en forma de dos dígitos separados con una pausa apropiada entre los dos y se repetirá hasta que repare el TV o él se repara a sí mismo.
Por ejemplo,
Se va visualizar el código de error 23:
2 parpadeos, una pausa corta;
3 parpadeos, una pausa larga.
Para la Lista de códigos de error, consulte la tabla.

PIP*
Return
PIP Contrast ◁▷
PIP H-Pos
PIP V-Pos
Default ☑
Store ☑
Restore ☑
UP ▽ DOWN ◁▷ CHANGE

* only PIP modes.

PIP

Return

Closes the sub-menu and returns to the "Main Service Menu"

Retourne au menu principal.

Schließt das Untermenü, und das Servicemodus-Menü erscheint.

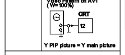
Chiude il sottomenu e fa apparire il menu principale Field Service Mode.

Cierra el submenú. El menú Field Service Mode aparece.

Press </> on the RCU or Vol. +/- on project.front panel

PIP Contrast

☼+◑+◐ = 50%
Video Pattern on AV1 (W=100%)



Y PIP picture = Y main picture

PIP H-Pos - PIP V-Pos

Factory adjustments.These adjustments are optimized by software.
Used only if necessary.

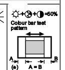
Réglages usines. Ces réglages sont optimisés par le software.
Ils ne sont à utiliser que si nécessaire.

Fabrikeinstellungen. Der Abgleich wurde per Software optimiert.
Nur wenn notwendig nachgleichen.

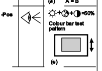
Reggolazioni di fabbrica. Tali regolazioni vengono ottimizzati dal software. Da utilizzare e solo se necessario

Ajustes de fábrica. Estos ajustes están optimizados por software.
Utilizar sólo en caso necesario.

PIP H -Pos



PIP V -Pos



(*) Center PIP image in the frame
Centrer l'image PIP
PIP -bild im fenster testbilds
Centrare l'immagine PIP sullo schermo
Centre la imagen PIP en el marco

→ After setting → Store (+) ☑

CONVERGENCE ALIGNMENT
Return
Alignment Mode 16/9....
Level 1 (3 x 3) ▷
Level 2 (5 x 5)
Level 3 (15 x 13)
Default
Store ☑
Restore ☐
△ UP ▽ DOWN ◁▷ CHANGE

CONVERGENCE ALIGNMENT

* Please refer to RPC19 100Hz 4/3 Service Manual Part N° 350 845 90 p.29-35

* Se référer à la documentation technique de base RPC19 100Hz 4/3 code : 350 845 90. p.29-35

* Bitte schlagen Sie im RPC19 100 Hz 4/3 Service Manual 350 845 90 nach S. 29-35

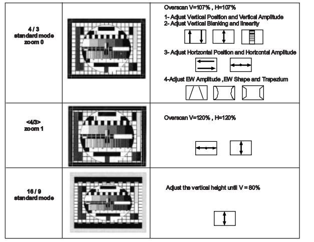
* Consultare la documentazione tecnica del telaio RPC19 100 Hz 4/3. codice: 350 845 90. p.29-35.

* Referirse a la documentación básica del RPC19 100 Hz 4/3. código : 350 845 90 p. 29-35

GEOMETRY MODE ALIGNMENT

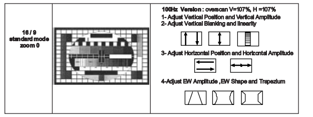
4/3 picture tube

Signal : 4/3 test pattern


4 / 3 standard mode zoom 0
Overscan V=107% , H=107%
1- Adjust Vertical Position and Vertical Amplitude
2- Adjust Vertical Blanking and linearity
3- Adjust Horizontal Position and Horizontal Amplitude
4-Adjust EW Amplitude ,EW Shape and Trapezium
<4/3> zoom 1
Overscan V=120% , H=120%
16 / 9 standard mode
Adjust the vertical height until V = 80%

16/9 picture tube

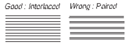
Signal : 4/3 test pattern


16 / 9 standard mode zoom 0
100Hz Version : overscan V=107%, H =107%
1- Adjust Vertical Position and Vertical Amplitude
2- Adjust Vertical Blanking and linearity
3- Adjust Horizontal Position and Horizontal Amplitude
4-Adjust EW Amplitude ,EW Shape and Trapezium

Note : GEOMETRY : V-Amplitude

Vertical Interlace - Entrelacement Vertical - Vertikal Interlace
Interlaccio Verticale - Entrelazado vertical

- Check the vertical interlace*.
- Contrôler l'entrelacement vertical*.
- Überprüfen Sie das vertikale Interlacing ("Verschachtelung") der Zeilen*.
- Controllare l'interlaccio verticale*.
- Compruebe El entralazado vertical*.



If the interlace is poor, adjust the **VAMP.** by 1/2 steps (+ or -) to achieve the best interlace.

Si l'entrelacement n'est pas correct agir sur **V AMP** de une ou deux valeurs pour obtenir un entrelacement correct.

Bei einer Paarigkeit der Zeilen verstellen Sie **V AMP** um 1 oder 2 Stufen (+ oder -)

Si el entrelazado no es bueno, mueva **VAMP** en 1 o 2 pasos (+ o -) para conseguir la mejor.

Se l'interlaccio non e' idoneo, correggere **VAMP** di 1 o 2 fasi (+/-) per ottenere l'interlaccio migliore.

* To check in 4:3 and in 16:9 - Contrôler en 4:3 et 16:9 - Kontrollieren Sie im 4:3 und im 16:9 Format .- Controllare nel formato 4:3 e 16:9. - Revisar en 4:3 y 16:9

ERROR CODES

GB

11 1st Audio_MSP doesn't answer
12 2nd Audio-MSP doesn't answer
13 Audio-DSP doesn't answer
14 Video IC STV2161/2 doesn't answer
15 Chroma IC 2151/9143 doesn't answer
16 Upconverter DMU0 doesn't answer
17 Audio (or Dolby) module not detected
18 SCART IC TEA6415C doesn't answer
19 Tuner CTT5000 doesn't answer
21 I2C Bus1 data line held low
22 I2C Bus2 data line held low
23 I2C Bus1 clock line held low
24 I2C Bus2 clock line held low
25 Switched 5V not available
26 Tube doesn't get warm in time
27 Deflection detects >3 times protection (problem detected on "breathing" line)
29 DRAM memory of Megatext defect
31 RAM is full
32 A software-timer has been requested, but is not available yet
33 The PSI chip (STV2165) doesn't answer
34 The NVM (X24C32) chip doesnt answer
35 13V not available
36 Wrong addr. NVRAM passed to the bus-handler
37 Unexpected level on NMI (interrupt) line found (possible cause : tube flashover)
38 M3LBus for Megatext is blocked
39 Megatext (SDA5273) doesn't answer
41 Bus1 Data Line not recoverable
42 bus2 Data Line not recoverable
43 MCU (Motion Mastering Up-Converter) doesn't answer
44 Convergence IC (STV2040) doesn't answer
45 Defect "Video Module" is detected
46 "Default" NVRAM of DCU doesn't answer
47 Test Pattern chip of DCU defect
48 Test Pattern NVRAM convergence chip defect
49 Convergence module doesn't answer anymore
51 PIP Module doesn't answer.
52 The Teletext module is not conform .

F

11 Processeur Audio MSP ne répond plus
12 Deuxième MSP ne répond plus (Dolby)
13 Audio-DSP ne répond plus (produit Dolby)
14 Video-IC STV2161 ou 2162 ne répond plus
15 Chroma-IC STV2151 ou TDA9143 ne répond plus
16 Convertisseur de frequence d'image digital DMU0 (intelligent Mastering) ne répond plus
17 Module son (ou Dolby) n'est pas détecté
18 Commutateur SCART TEA6415C ne répond plus
19 Tuner CTT5000 ne répond plus
21 I2C-bus 1 data bloqué au niveau bas
22 I2C-bus 2 data bloqué au niveau bas
23 I2C-bus 1 clock bloqué au niveau bas
24 I2C-bus 2 clock bloqué au niveau bas
25 Le "5V commuté" n'est pas disponible
26 Tube ne chauffe pas a temps
27 Protection base de temps active plus de trois fois (problème détecté sur la ligne "breathing")
29 Mémoire (DRAM) du Megatext est en panne
31 Plus de place en RAM
32 Requète logiciel-timer demandée mais pas encore disponible
33 STV 2165 (PSI 100Hz) ne répond plus
34 NVM (mémoire) X24C32 ne répond plus
35 +13V n'est pas disponible
36 Adresse NVRAM inconnue
37 Problème détecté sur la ligne "interrupt" pendant le démarrage ou le fonctionnement du TV. Possibilité: "arking"?
38 Bus M3L pour Megatext est bloqué
39 Megatext (SDA5273) ne répond plus
41 I2C-bus 1 data reste bloqué
42 I2C-bus 2 data reste bloqué
43 MCU (convertisseur de frequence d'image digital: Motion Mastering) ne répond plus
44 Le CI Convergence (STV2040) ne répond plus
45 "Vidéo Module" erroné détecté
46 La NVRAM "Default" de la platine de convergence ne répond plus
47 Test Pattern du CI de Convergence erroné
48 Test Pattern des NVRAM de Convergence erroné
49 La platine de Convergence ne répond plus.
51 Le module PIP ne répond plus.
52 Le Module Text (DVT) n'est pas le bon.

D

11 Audio MSP Prozessor antwortet nicht.
12 Zweiter Audio MSP Prozessor antwortet nicht.(Dolby)
13 Audio DSP Prozessor antwortet nicht. (Dolby)
14 IC STV2161/62 antwortet nicht
15 IC STV2151 / TDA9143 antwortet nicht
16 DMU0 Upconverter (Videomodul) antwortet nicht
17 Audio- oder Dolby-Modul nicht erkannt
18 TEA6415C antwortet nicht (SCART-Schalter)
19 Tuner CTT5000 antwortet nicht
21 I2C Bus1 data line ist auf low
22 I2C Bus2 data line ist auf low
23 I2C Bus1 clock line ist auf low
24 I2C Bus2 clock line ist auf low
25 Geschaltete 5V nicht vorhanden
26 Röhre wird nicht rechtzeitig warm
27 Ablenkung meldet 3 mal Fehler. (Problem auf Breathing Leitung)
29 DRAM des Megatext defekt
31 RAM antwortet nicht
32 Ein software-timer wurde angefordert, ist aber noch nicht bereit
33 STV 2165 (PSI 100Hz) antwortet nicht
34 NVM Chip antwortet nicht (X24C32)
35 +13V nicht vorhanden
36 NVM adresse nicht gefunden
37 Unerwarteter Zustand an NMI (interrupt) line gefunden. (Mögliche Ursache = Röhren-Überschlag")
38 M3L Bus des Megatext blockiert
39 Megatext (SDA 5273) antwortet nicht
41 Bus1 (data line) nicht möglich zu reaktivieren
42 Bus2 (data line) nicht möglich zu reaktivieren
43 MCU (Motion Mastering Up-Converter) antwortet nicht
44 Konvergenz IC (STV2040) antwortet
45 falsches Videomodul (falscher MCU)
46 NVRAM für Konvergenz antwortet nicht
47 Bildmuster im Konvergenz-IC ist defekt
48 Bildmuster aus dem NVRAM ist defekt
49 Bildrohrtyp "R" ist eigestellt, aber kein Konvergenz-IC gefunden
51 PIP antwortet nicht
52 Falsches Videotextmodul.

I

11 Il primo IC Audio MSP non risponde
12 Il secondo IC Audio MSP non risponde
13 L'integrato Audio DSP non risponde
14 L' IC 2161/2 non risponde
15 L'IC 2151/9143 non risponde
16 Il convertitore non risponde
17 Il Modulo Audio non viene identificato
18 Il TEA6415C non risponde
19 Il sintonizzatore non risponde
21 Linea data I2C bus 1 forzata bassa
22 Linea data I2C bus 2 forzata bassa
23 Linea clock I2C bus 1 forzata bassa
24 Linea clock I2C bus 2 forzata bassa
25 La tensione 5V commutati non disponibile
26 Il tubo non raggiunge la corretta temperatura nel tempo stabilito
27 Per 3 volte, la deflessione ha rilevato una protezione (problema riscontrato dalle linee "breathing")
29 Difetto alla DRAM di Megatext
31 La RAM è satura
32 E' stato richiesto un software-timer, ma non é ancora disponibile
33 Il chip PSI non risponde
34 Il chip NVM non risponde
35 13V non disponibile
36 E' stato trasmesso al bus un indirizzo errato della NVRAM
37 Livello imprevisto sulla linea NMI
38 Bus M3L per Megatext bloccato
39 Megatext non risponde
41 Bus 1 (linea dati) non ripristinabile
42 Bus 2 (linea dati) non ripristinabile
43 MCU non risponde
44 Convergenza IC (STV2040) non risponde
45 rivelato Modulo Video difettoso
46 "Default" NVRAM di DCU non risponde
47 Integrato generatore di test DCU difettoso
48 Integrato generatore di test NVRAM difettoso
49 Il modulo convergenza non risponde
51 Il Modulo PIP non viene identificato
52 Il modulo Televideo non è conforme

E

11 Procesador de audio MSP no responde
12 Segundo MSP no responde (Dolby)
13 Audio DSP no responde
14 Cir. integrado de video STV2161 ó 2162 no responde
15 Cir. integrado croma ST2151 ó TDA9143 no responde
16 Convertidor de frecuencia de imagen digital DMU0 (Mastering inteligente) no responde
17 Módulo de sonido (o Dolby) no se detecta
18 Conmutador Scart (TEA6415C) no responde
19 Tuner CTT5000 no responde
21 Data 1 del bus I2C permanece en bajo
22 Data 2 del bus I2C permanece en bajo
23 Clock 1 del bus I2C permanece en bajo
24 Clock 2 del bus I2C permanece en bajo
25 No se dispone de los "5v conmutados"
26 El tubo tarda en calentarse
27 La protección de la deflexión actúa mas de 3 veces (el problema se detecta en la línea de "breathing")
29 La memoria DRAM del Megatext está defectuosa
31 RAM está llena
32 Un timer-software ha sido solicitado, pero no está disponible
33 El chip STV2161 (PSI 100Hz) no responde
34 La memoria no volátil X24C32 no responde
35 No están disponibles los + 13 v.
36 Dirección de la NVRAM incorrecta
37 Problema detectado en la línea "interrupt" durante el arranque o el funcionamiento del TV.Posibilidad de chispazos en muy alta?
38 El bus M3L para el Megatext está bloqueado
39 Megatext (SDA5273) no responde
41 Data 1 del bus I2C permanece boqueado
42 Data 2 del bus I2C permanece bloqueado
43 MCU (convertidor de frecuencia de imagen digital: Motion Mastering) no responde
44 Cir.integrado de covergencia (STV2040) no responde
45 Fallo detectado en el módulo de Video
46 Fallo en NVRAM o DCU no responde
47 Fallo en c.i. de mira o DCU
48 Fallo en c.i. NVRAM de convergencias
49 El módulo de convergencias no responde
51 El módulo PIP no responde
52 El módulo Teletexto no es conforme

GEOMETRIE / CONVERGENCE ADJUSTMENT - GEOMETRIE / REGLAGES DES CONVERGENCES / GEOMETRIE / KONVERGENZ ABGLEICH - GEOMETRIA / REGOLAZIONE CONVERGENZA - GEOMETRIA / AJUSTE DE CONVERGENCIA

ADJUSTMENTS LEVELS

For every point on the screen, each of the three beams has a specific correction possibility in both horizontal and vertical planes. To achieve this, three levels of adjustment are available in the Service Mode. The unit is also equipped with an alignment grid pattern generator incorporated on the convergence circuit board.

Trois niveaux de réglages sont accessibles dans le mode service et permettent à partir d'une mire de quadrillage générée par les circuits de convergence d'apporter une correction horizontale et verticale aux trois faisceaux de couleur.

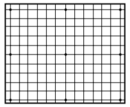
Für jeden Punkt des Bildschirmes und für jeden der drei Katodenstrahlen ist eine spezielle Korrektur sowohl horizontal als auch vertikal, möglich. Im Service-Mode sind drei Ebenen (Level) für den Abgleich der Konvergenz verfügbar.
Das Gittertesbild wird von der Konvergenzschaltung erzeugt.

Per ogni punto dello schermo, ognuno dei tre raggi ha una specifica possibilità di correzione in entrambi i piani orizzontale e verticale. A questo scopo, sono disponibili tre livelli di regolazione in Service Mode. L'unità, inoltre, dispone di un generatore di griglia per l'allineamento, incorporato sulla piastra convergenza.

Tres niveles de ajustes están disponibles en Modo Servicio y permiten a partir de una mira de cuadrícula generada por los circuitos de convergencia, efectuar correcciones especificas en los planos horizontal y vertical para cada uno de los tres haces.

LEVEL 1

9 points for Green and Blue



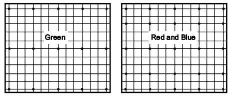
3 X 3 points

Factory adjusts reserved
Réservé aux réglages Usines
Fabrikeinstellungen
Regolazioni riservate alla fabrica
Ajustes reservados para fábrica

⚠

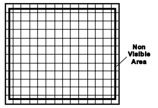
MUST NOT BE USED
NE DOIT PAS ETRE UTILISE
DÜRFEN NICHT VERÄNDERT WERDEN
NO DEVE ESSERE USATO
NO DEBE SER USADO

LEVEL 2	LEVEL 3
Large and general corrections *Corrections générales étendues* *Grundeinstellungen* *Correzioni generali estese* *Correcciones generales y extendidas*	*Small local corrections* *Petites corrections locales* *Feineinstellungen* *Piccole correzioni locali* *Pequeñas correcciones locales*
15 or 25 points	195 points for Green, Red , Blue



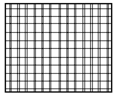
3 X 5 points

5 X 5 points

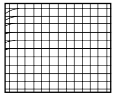


DESCRIPTION OF POSSIBLE CONVERGENCE PROBLEMS

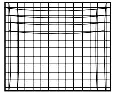
RED AND BLUE PICTURE SHIFTED



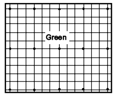
BORDERS OR SMALL AREAS ARE VERY POORLY ALIGNED



SMALL ADJUSTMENTS

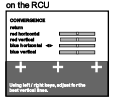


GREEN GEOMETRY IS POORLY ALIGNED



RED AND BLUE PICTURE SHIFTED (GB)

Static Adjustments
- Select "CONVERGENCE" in the Install Menu.
- Correct the shift using the "NAVIGATION" buttons on the RCU



Using left / right keys, adjust for the best vertical lines.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- If the required alignment falls outside the central area of the barograph, set all barographs central and make the adjustments using the magnetic centring rings on the red and blue tubes.
- Firstly, unlock the lightly glued centring rings and then make the necessary adjustments.
- Once aligned the rings must be locked using a lightweight glue or varnish in order that subsequent adjustments can be made.

CENTRAL AREA IS CORRECT. BORDERS OR A SMALL AREAS ARE VERY POORLY ALIGNED

A - GREEN geometry is correct :
- Only adjust the Red and Blue geometry using Level 3 of the convergence menu, **don't touch the green geometry !**

B - GREEN nedds a small adjustment :
- First adjust the Green geometry, then align the Red and Blue geometry using **Level 3** convergence menu.

SMALL ADJUSTMENTS ARE NECESSARY EVERYWHERE.
GREEN GEOMETRY IS CORRECT

The some convergence lines are incorrect, but Green geometry is correct.
- Align Red and Blue geometry using convergence menu **Level 2.**
- Correct the borders if needed using convergence menu Level 3, **don't touch the green geometry !.**

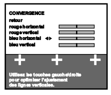
GREEN GEOMETRY IS POORLY ALIGNED

A - BLUE or RED Geometry is correct :
- Enter the convergence menu **Level 2** and press the YELLOW button on the RCU. The red, green and blue grids are displayed but only GREEN geometry can be aligned.
- Adjust the Green geometry to superimpose it on either the Red and/or Blue grid, to ease alignment select the best-converged colour and cover the others lens.

B - BLUE or RED is poorly aligned :
- Enter the Service Mode and select the GEOMETRY menu
- Adjust the alignment of the H/V Amplitudes and E/W Correction settings, if the geometry does not respond to adjustment then:
- Select convergence menu **Level 2** and press the YELLOW button on the RCU to select Green (3X5) alignment routine.
- Check that the centre point of the green grid is exactly central
- Align the grid pattern borders exactly with the screen borders.
- Align the outer edge of the picture if necessary, using convergence menu **Level 3.**
- Align RED convergence using menu **Level 2** and if necessary the borders with **Level 3.**
- Repeat the above process for BLUE alignment.

IMAGE ROUGE ET BLEUE DECALEES (F)

Réglage Statique
- Sélectionner convergence dans le menu d'installation.
- Corriger le décalage avec les touches de navigation.



Utilisez les touches gauche/droite pour optimiser l'ajustement des lignes verticales.

- *Appuyer sur la touche "INSTALL." du clavier du RP pour l'accès au menu d'installation*

- Si le réglage nécessaire est loin de la position centrale des bargraphs il est recommandé de mettre ceux-ci en position centrale et de corriger avec les anneaux de centrage magnétiques des tubes correspondants.
Débloquer préalablement les anneaux fixés par un collage léger.
- refixer ensuite les anneaux avec une colle ou laque pas trop forte pour autoriser une retouche ultérieure.

CENTRE CORRECT.
BORDS OU PETITE SURFACE NON CORRECTE

A - VERT a une géométrie correcte :
- Régler seulement le Rouge et Beu avec **Level 3, ne pas toucher au vert !.**

B - VERT nécessite une légère correction :
- Régler le Vert avec **Level 3** et corrger ensuite le Rouge et le Bleu avec **Level 3.**

PETITES CORRECTIONS NECESSAIRES EN TOUS POINTS DE L'ECRAN.
GEOMETRIE DU VERT CORRECTE

Quelques lignes ont une convergence incorrecte mais le Vert a une géométrie correcte.
- Régler le Rouge et le Bleu avec **Level 2.**
- Corriger les bords si nécessaire avec **Level 3, ne pas toucher au Vert !.**

GEOMETRIE DU VERT NON CORRECTE

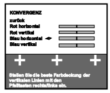
A - Géométrie du BLEU ou ROUGE correcte :
- Sélectionner **Level 2** et utiliser **la touche jaune** de la télécommande: Les images Rouge, Verte/Beue sont affichées mais la correction s'effectue sur le Vert
- Régler l'image du Vert afin de la superposer à celle du Rouge et/ou de celle du Bleu. Couvir le Bleu ou Rouge . Choisir l'image ayant la meilleure géométrie.

B - BLEU ou ROUGE ont une mauvaise géometrie :
- Selectionner dans le mode service les Réglages de géométrie H/V et Correction Est/Ouest
- Régler la Géométrie.

Si la géométrie ne peut être corrigée:
- Selectionner **Level 2** pour le Vert (3X5).
- Contrôler la position du centre.
- Régler les côtés de la mire exactement par rapport aux bords de l'écran.
- Régler les bords externes de l'image avec **Level 3** si nécessaire.
- Corriger le Rouge avec **Level 2** puis ensuite avec **Level 3** pour les bords si nécessaire.
- Procéder de même pour le Bleu.

ROTES UND BAUES BILD SIND VERSCHOBEN (D)

Statische Einstellung
-Wählen Sie im Installationsmenü "KONVERGENZ"
-Stellen Sie die beste Farbdeckung mit den Pfeil-Tasten ein.



Stellen Sie die beste Farbdeckung der vertikalen Linien mit den Pfeiltasten rechts/links ein.

- *Drücken Sie die Taste "INSTALL" auf dem Nahbedienfeld des Projektors um in das Installations-Menü zu kommen.*

- Sollte der Einstellbereich zu klein sein oder nicht ausreichen, empfehlen wir,alle Anzeigebalken auf Mittelstellung zu bringen und eine Korrektur der Farbdeckung mittels der Zentriermagnete der jeweiligen Röhre vorzunehmen.
- Lösen Sie hierzu zuerst die Verklebung der Ringe und nehmen dann die Einstellungen vor.Danach fixieren Sie die Ringe wieder so mit einem Kleber oder mit Sicherungslack,daß ein späterer Abgleich möglich ist.

DIE BILDMITTE IST IN ORDNUNG, SCHLECHTE DECKUNG AN DEN BILDRÄNDERN ODER IN KLEINEREN FLÄCHEN.

A - GRÜN-Geometrie ist in Ordnung:
- Gleichen Sie nur Rot und Blau im **Level 3** ab, **Grün nicht verstellen !.**

B - GRÜN benötigt geringe Korrekturen:
- Gleichen Sie Grün im **Level 3** nach und korrigieren dann Blau im **Level 3.**

ÜBERALL SIND KLEINE EINSTELLUNGEN NOTWENDIG, DIE GRÜN-GEOMETRIE IST IN ORDNUNG

Einige Linien sind nicht in Konvergenz, die Geometrie von Grün ist aber in Ordnung.
- Gleichen Sie Rot und Blau im **Level 2** ab,
- Gleichen Sie die Bildränder gegebenenfalls im **Level 3** nach, **Grün nicht verstellen !.**

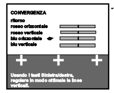
ABGLEICH DER GRÜN-GEOMETRIE

A - Die BLAU-oder ROT-Geometrie ist in Ordnung:
- Gehen Sie in das Konvergenzmenü **Level 2** und drücken Sie die GELBE Taste auf der Fernbedienung. Das rote, grüne und blaue Gitter werden angezeigt. Es läß sich jedoch nur die Geometrie von GRÜN einstellen.
- Bringen Sie das grüne Gitter mit dem roten oder blauen zur Deckung.Zur Vereinfachung des Abgleichs wählen Sie das am besten deckende Gitter und dunkeln die Linse der anderen Farbe ab.

B - BLAU oder ROT sind schlecht abgelichen :
- Gehen Sie im Service Mode in das Menü "GEOMETRY"
- Gleichen Sie die H-, V-Amplitude und die Ost/West-Korrektur nach.Solte die Geometrieeinstellung nicht reagieren:
- Gehen Sie in das Konvergenzmenü **Level 2** und drücken die GELBE Taste auf der Fernbedienung um den GRÜN (3X5)-Abgleich zu wählen.
- Überprüfen Sie ob der Mittelpunkt des grünen Gitters in der exakten Mitte des Bildschirmes ist.
- Stellen Sie die Ränder des Gittermusters exakt auf Ränder des Bildschirmes ein.
- Gegebenenfalls korrigieren Sie die Einstellungen der äußeren Ecken im Konvergenzmenü **Level 3.**
- Gleichen Sie die ROT-Konvergenz im **Level 2** ab,ggf. korrigieren Sie Ränder im **Level 3.**
- Wiederholen Sie diessen Abgleich mit BLAU.

IMMAGINE ROSSA E BLU SPOSTATA. (I)

Regolazione statica
- Selezionare Convergence nel menu Install.
- Correggere lo spostamento utilizzando i tasti numerici.



Usando i tasti Sinistra/destra, regolare in modo ottimale le linee verticali.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- Se la regolazione ottimale è lontana dalla posizione centrale della barra grafica, è consigliabile porre questi in posizione centrale ed effettuare le correzioni con gli anelli di centratura magnetici dei tubi corrispondenti.
Sbloccare inizialmente gli anelli leggermente incollati.
- Reincollarli utilizzando colla leggera o lacca per rendere possibili successivi ritocchi.

L'AREA CENTRALE È CORRETTA.
I BORDI O UNA PICCOLA AREA SONO SCORRETTI

A - La geometria del VERDE è corretta :
- Regolare solo Rosso e Blu utilizzando **Level 3, non toccare Il Verde !.**

B - Sono necesssarie piccole modifiche anche per il VERDE:
- Regolare il Verde utilizzando **Level 3** quindi correggere Rosso e Blu utilizzando **Level 3.**

È NECESSARIO APPORTARE OVUNQUE PICCOLE MODIFICHE. LA GEOMETRIA DEL VERDE È CORRETTA.

Alcune linee non sono in convergenza ma la geometria del Verde è corretta.
- Regolare Rosso e Blu utilizzando **Level 2.**
- Se necessario, correggere i bordi utilizzando **Level 3, non toccare Il Verde !.**

LA GEOMETRIA DEL VERDE È SCORRETTA.

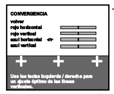
A - La geometria del BLU o del ROSSO è corretta :
- Nel **Level 2** utilizzare il Pulsante giallo sul telecomando: vengono visualizzati Rosso, Verde e Blu ma le correzioni vengono effettuate nel Verde.
- Regolare il Verde perchè si sovrapponga su Rosso e/o Blu.
Le lenti Rossa o Blu per una facile regolazione devono essere coperte.
Scegliere quella più visibile e che presenta la geometria migliore.

B – La geometria del BLU o del ROSSO è scorretta :
- In Service Mode Geometry selezionare: ampiezza H/V (Orizzontale/Verticale) e East/West.
- Regolare la geometria.

Se la Geometria non è regolabile:
- Selezionare **Level 2** per il Verde (3x5).
- Controllare che il centro si trovi esattamente in centro.
- Allineare i bordi dell reticola ai bordi dello schermo.
- Se necessario, regolare la parte esterna dell'immagine utilizzando **Level 3.**
- Correggere il Rosso utlizzando **Level 2** e, se necessario, **Level 3** per i bordi.
- Ripetere la medesima procedura per il Blu.

IMAGEN ROJA Y AZUL DESPLAZADA (E)

Ajuste estático
-Seleccione la convergencia en el menú Install.
Corrija el desplazamiento con las teclas de navegación.



Use las teclas izquierda / derecha para un ajuste óptimo de las líneas verticales.

- *Press the"INSTALL." button on the projector keyboard to select in Installation menu.*

- Si el ajuste necesario está lejos de la posición central de los gráficos de barras, se recomienda situarlos en la posición central y corregirlos con los anillos de centrado magnéticos de los tubos correspondientes.
Desbloquee previamente los anillos fijados con un pegamento ligero.
- A continuación, fije de nuevo los anillos con un pegamento o una laca no muy fuerte para permitir un ajuste posterior.

EL ÁREA CENTRAL ES CORRECTA.
LOS BORDES O UN ÁREA PEQUEÑA NO SON CORRECTOS

A - VERDE tiene una geometría correcta:
- Ajuste sólo rojo y azul con el **nivel 3,no altere verde !.**

B - VERDE también necesita una pequeña corrección:
- Ajuste verde con el **nivel 3** y después corrija rojo y azul con el mismo **nivel 3.**

SE NECESITAN PEQUEÑOS AJUSTES EN TODO.
LA GEOMETRÍA VERDE ES CORRECTA

Algunas líneas carecen de convergencia, pero la geometría verde es correcta.
- Ajuste rojo y azul con el **nivel 2.**
- Corrija los bordes si es necesario con el **nivel 3, no altere el verde !.**

LA GEOMETRÍA VERDE NO ES CORRECTA

A - AZUL o ROJO tienen una geometría correcta:
- Con el **nivel 2,** utilice el botón amarillo en el control remoto: se visualizan rojo, verde y azul, pero la corrección está en verde.
- Ajuste verde para superponer en rojo o azul.
Las lentes rojas o azules se pueden cubrir. Seleccione la que sea más visible o tenga la mejor geometría.

B - AZUL o ROJO tienen también una geometría deficiente:
- En geometría del modo de serivicio, seleccione: amplitud H/V y Este/Oeste.
- Ajuste la geometría.

Si esta geometría no se puede ajustar:
-Seleccione el **Nivel 2** para verde (3x5).
- Compruebe que el centro está situado exactamente en el centro.
- Realice los ajustes necesarios para que los bordes de la rejilla coincidan con los de la pantalla.
- Ajuste la parte exterior de la imagen con el **Nivel 3** si es necesario.
- Corrija rojo con el **Nivel 2** y después con el **Nivel 3** para los bordes si es necesario.
- Repita la misma operación para azul.

INFORMATION NOTE - INFORMATION - NOTA INFORMATIVA - NOTA DE INFORMACIÓN

CORRECTION OF BANDING EFFECT (GB)

The "Banding Effect" is a non-uniform area or shadow on the screen, which can happen after convergence adjustments have been performed in Level 3, The effect can be caused by either: -- two horizontal lines being to close together (a bright area).- two horizontal lines being to far apart (a dark area).The effect is most visible on a uniform pictures (see diagram below).

Adjustment Procedure :
Identify the colour causing the problem and then blank off the other two lenses.
- Enter the convergence menu at Level 3 and select the corresponding colours alignment routine.
- Using the NUMERICAL buttons (2, 8, 6 and 4) on the RCU, position the cursor on the right hand edge of the non-uniform area of the screen.
- Remove the test grid pattern by disconnecting the cable connected to socket BK01 on the DCU board.
- Adjust the brightness of the non-uniform area using the "NAVIGATION" (up, down, left and right) buttons on the RCU.
- Select the next cursor position using the NUMERICAL buttons on the RCU and adjust its brightness.
- After completing the adjustment procedure reconnect the cable to BK01 on the DCU board.

CORREZIONE DELL' EFFETTO BANDING (I)

L'« effetto banding » è costituito da un'area non uniforme (ombra) che può prodursi dopo regolazione della convergenza (p. es. Level 3).
- Quando due linee sono troppo distanti: l'immagine è più scura.
- Quando due linee troppo sono vicine: l'immagine è più luminosa.
Ciò è visibile su un'immagine uniforme (Vedere Illustrazione sottostante).

Procedura:
- Identificare quale colore provoca il difetto coprendo le due lenti in modo che sia visibile solo un colore su un monoscopio bianco.
- Selezionare level 3 per il colore corrispondente.
- Posizionare il cursore nella giusta posizione.
- Rimuovere la griglia scollegando il cavo dal connettore BK01 sul DCU.
- Correggere la non uniformità nella luminosità.
- Spostare il cursore a destra o a sinistra per correggere il punto successivo.
- Terminate le regolazioni, non dimenticare di collegare il cavo BK01.

CORRECCIÓN DEL EFECTO DE BANDA (E)

El "efecto de banda" es un área no uniforme (sombra). Puede ocurrir después de un ajuste de convergencia (por ej., nivel 3).
- Cuando 2 líneas horizontales están demasiado cercanas: el área es más brillante.
- Cuando 2 líneas horizontales están demasiado distantes: el área es más oscura.
Es visible en una imagen uniforme (vea el dibujo más abajo).

Procedimiento:
- Identifique el color que ocasiona el fallo cubriendo 2 lentes, de modo que sólo se vea un color con una plantilla de prueba blanca.
- Seleccione el nivel 3 para el color correspondiente.
- Coloque el cursor en el lugar adecuado.
- Retire la rejilla desconectando el cable del conector BK01 en la placa DCU.
- Corrija la falta de uniformidad en el brillo.
Mueva el cursor a la derecha o a la izquierda para corregir la posición siguiente.
- No olvide conectar el cable BK01 después del ajuste.

CORRECTION DE L'EFFET DE BANDE (F)

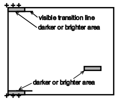
L'effet de bande est une zône d'écran non uniforme (ombre). .Ceci peut survenir après un réglage de convergence (par exemple "Level 3").
- Lorsque deux ligne horizontales sont trop proches : *la bande est brillante*
- Lorsque deux ligne horizontales sont trop distantes : *la bande est sombre.*
L'effet de bande est visible sur image fixe.(Voir Fig. ci-dessous).

Procédure :
- Identifier la couleur affectée par l'effet de bande en recouvrant deux optiques.
- Selectionner le niveau " **level 3"** correspondant à la couleur du défaut .
- Positionner le curseur à sa place exacte .
- Désélectionner la mire interne en déconnectant le connecteur BK01 de la platine DCU.
- Corriger le phénomène .
- Déplacer le curseur à gauche ou à droite pour le réglage du point suivant .
- Ne pas omettre de reconnecter le connecteur après les réglages.

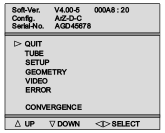
KORREKTUR DES BANDING-EFFEKTES (D)

Der Banding-Effekt ist eine ungleichmäßige Zone oder ein Schatten auf dem Bildschirm. Dies kann nach einem Konvergenzabgleich im Level 3 auftreten-Der Effekt wird verursacht von.
-zwei horizontale Linien sind zu dicht zusammen (helle Zone)
-zwei horizontale Linien sind zu weit auseinander (dunkle Zone).
Der Effekt wird bei einem einfarbigen Bild am meisten sichtbar (siehe Bild unten).

Abgleich:
Stellen Sie fest, welche Farbe den Effekt verursacht indem Sie jeweils zwei Farben abdecken.
- Gehen Sie in das Konvergenzmenü **Level 3** und wählen Sie den Abgleich für die jeweilige Farbe.
- Mit der Zifferntastatur (2, 8, 6 und 4) der Ferbedienung bringen Sie den Cursor auf die rechte Kante der Zone.
- Schalten Sie das Gittermuster durch Ziehen des Kabels vom Verbinder BK01 auf der DCU-Platine aus.
- Stellen Sie die Helligkeit der Zone mit den Pfeiltasten der Fernbedienung ein.
- Bewegen Sie den Cursor auf die nächste Position und wiederholen die Einstellung.
- Nach dem Abgleich stecken Sie das Kabel wieder auf Verbinder BK01.



CONVERGENCE ADJUSTMENT - REGLAGES DES CONVERGENCES - KONVERGENZ ABGLEICH - REGOLAZIONE CONVERGENZA - AJUSTE DE CONVERGENCIA

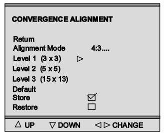


Soft-Ver. V4.00-5 000A8 : 20
Config. ArZ-D-C
Serial-No. AGD45678

▷ QUIT
TUBE
SETUP
GEOMETRY
VIDEO
ERROR

CONVERGENCE

△ UP ▽ DOWN ◁▷ SELECT

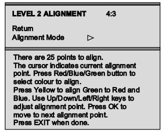


CONVERGENCE ALIGNMENT

Return
Alignment Mode 4:3....
Level 1 (3 x 3) ▷
Level 2 (5 x 5)
Level 3 (15 x 13)
Default
Store ☑
Restore ☐

△ UP ▽ DOWN ◁ ▷ CHANGE

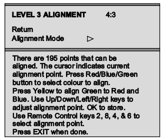
LEVEL 2



LEVEL 2 ALIGNMENT 4:3
Return
Alignment Mode ▷

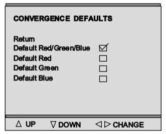
There are 25 points to align.
The cursor indicates current alignment point. Press Red/Blue/Green button to select colour to align.
Press Yellow to align Green to Red and Blue. Use Up/Down/Left/Right keys to adjust alignment point. Press OK to move to next alignment point.
Press EXIT when done.

LEVEL 3



LEVEL 3 ALIGNMENT 4:3
Return
Alignment Mode ▷

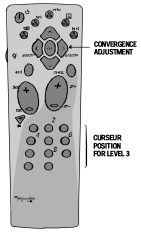
There are 195 points that can be aligned. The cursor indicates current alignment point. Press Red/Blue/Green button to select colour to align.
Press Yellow to align Green to Red and Blue. Use Up/Down/Left/Right keys to adjust alignment point. OK to store.
Use Remote Control keys 2, 8, 4, & 6 to select alignment point.
Press EXIT when done.



CONVERGENCE DEFAULTS

Return
Default Red/Green/Blue ☑
Default Red ☐
Default Green ☐
Default Blue ☐

△ UP ▽ DOWN ◁ ▷ CHANGE



SERVICE MODE (GB)

- Select "CONVERGENCE"

- Select the "ALIGNMENT MODE" line of the convergence menu.- Start the adjustment procedures in the 4:3 format.- Select "LEVEL 2" menu line and LEVEL 2 ALIGNMENT menu will appear.

Please Note:

-Level 1 menu line (factory alignment) must be used. This alignment procedure must also be repeated for 16:9 format.

LEVEL 2 ALIGNMENT MENU :

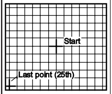
- Press the **"OK"** button on the RCU to activate the Green test grid pattern, this is used throughout the alignment procedure as a reference.
- Confirm that the Green geometry is correct.
- Press the "RED" button on the RCU to activate the red test grid, the cursor will be set to the centre point on the red grid.
- Using the "NAVIGATION" ("∧"up, "∨" down, "<" left and "▷" right) buttons on the RCU, align the red central cursor position to the green centre grid reference point.

A long press on the associated "NAVIGATION" button on the RCU will accelerate the step size of the adjustment.

- Press the **"OK"** button on the RCU to advance to the next cursor position and repeat the alignment process until all twenty five (25th = screen bottom left) alignment position have been checked.

IMPORTANT :

When the last position has been adjusted:
- **Press** the **"OK"** button on the RCU **only one time and wait for 60s**.
The microprocessor will calculate all the intermediate positions and nothing will happen for 10s, then the cursor will disappear for 15s.Finally the cursor will re-appear move back through all adjustment points to the centre point on the test grid.



- Press the "EXIT" button on the RCU to return to "Level 2" menu.
- Select "RETURN" on the menu.
- Next select "STORE" on the convergence menu.
- Check for "Banding Effect" (see information note page 32).
- Repeat the alignment procedure for "BLUE".

LEVEL 3 ALIGNMENT :

Each one of the 195 alignment point can be reached by;
- Using the NUMERICAL buttons 2 (up), 8 (down), 6 (right) and 4 (left) on the RCU to position the cursor on the screen.
- Convergence alignment is done using the "NAVIGATION" ("(∧)"up, "▽" down, "<" left and "▷" right) buttons on the RCU.
- Press the "EXIT" button on the RCU to return to "Level 2" menu.
- Select "RETURN" on the menu.
- Next select "STORE" on the convergence menu.
- Check for "Banding Effect" (see information note page 32).

IMPORTANT :

> Once "Level 3" alignment is completed, do not use "Level 2" otherwise all adjustments made in "Level 3" will be ERASED.

16:9 : Select 16:9 format in the Convergence Alignment menu and repeat the above procedures.

Convergence defaults :

If the convergence alignment is completely wrong most adjustments can be made starting with the factory convergence values, these are stored in the NVM as default values.

Default Red/Green/Blue :All of the colours convergence default values are stored in the Convergence RAM IC.

Default Red
Default Green } Load the values for either Red ,Green or Blue.
Default Blue

Restore : copies the last stored values from the NVM to the convergence RAM IC.

Store : Copies all Convergence RAM values to the NVM.

SERVICE MODE (F)

- Selectionner "CONVERGENCE"

- Selectionner "Alignment Mode".
- Commencer les réglages avec le format "4:3".
- Selectionner " Level 2".
  Le menu de réglage " Level 2" apparaît.

Note :

La procédure de réglage s'applique également au format 16/9.

MENU D'ALIGNEMENT "LEVEL 2" :

- Appuyer sur la touche OK de la télécommande.

La mire de convergence apparaît .

- Contrôler la Géométrie du Vert .
- Appuyer sur la touche Rouge de la télécommande pour régler le Rouge par rapport à la mire du Vert servant de référence . Le curseur est au centre.
- Utiliser les touches de navigation "△", "∨ ","◁", et " >" de la télécommande pour effectuer le réglage. Une longue pression permet d'obtenir un effet d'accélération du réglage.

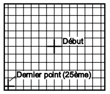
Après le réglage du centre:

- Appuyer sur **OK** pour la sélection du point suivant à régler.

Lorsque ce second point est aligné ou si aucun réglage n'est nécessaire appuyer sur la touche **"OK"**.
Effectuer ainsi jusqu'au dernier point (25)au coin inférieur gauche.

IMPORTANT :

Lorsque le dernier point est réglé :
- **Appuyer sur "OK" une seule fois et attendre 60s**.
Le microprocesseur calcule toutes les positions intermédiaires: rien ne se passe à l'écran durant 10s.Le curseur disparaît pendant 15s. Finalement, via toutes les positions, il se stabilise au centre de l'écran.



- Appuyer sur "Exit" pour retourner au menu "Level 2".
- Selectionner "Return": le menu "convergence alignment"apparaît
- Mémoriser par **"store"**.
- Contrôler l'effet de Bande (Voir ci-après la Note d'Information).

Même procédure pour le Bleu.

ALIGNEMENT LEVEL 3

Chacun des 195 points de réglage est accessible :
- Utiliser les touches numériques suivantes: **2** (haut), **8** (bas), **6** (droit) et **8** (bas).
- le réglage des convergences s'effectue au moyen des touches de navigation **haut** (△),**bas** ∨ ,**gauche** ◁ et **droit** > .
- Appuyer sur la touche "EXIT"de la télécommande pour retourner au menu "Level 2"
- Sortir du menu d'alignement des convergences et **mémoriser**.
- Contrôler l'effet de Bande (Voir la Note d'Information ci-après).

IMPORTANT :

> Aprèsavoir reglé le "level 3" ne pas utiliser le "level 2", les corrections effectuées au "level 3" seraient perdues.

16:9 : Selectionner 16:9 dans le menu Mode alignement; répéter la procédure.

Valeurs par defaults :

En cas de déréglages importants des convergences,l'alignement peut être reprit à partir des valeurs usines.
Ces valeurs par défaut sont mémorisées en NVM.

Default Red/Green/Blue :Toutes les valeurs par défaut des trois couleurs sont mémorisées dans la RAM de convergence.

Default Red
Default Green } Charge les valeurs pour le rouge, le Vert ou le Bleu.
Default Blue

Restore : copie toutes les valeurs des données NVM en mémoire RAM de convergence.

Store : Copie la valeur RAM en NVM de convergence.

SERVICE MODE (D)

- Wählen Sie "CONVERGENCE"

- Wählen Sie "ALIGNMENT MODE".
- Beginnen Sie den Abgleich im 4:3 Format
- Wählen Sie Level 2.
  Das "LEVEL 2 ALIGNMENT"-Menü erscheint.

Bitte beachten sie:

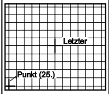
- Die Einstellungen im Level 1 sind Werkseinstellungen und sollten nicht verändert werden.
  Der Konvergenzabgleich ist auch für das 16:9 Format vorzunehmen.

ABGLEICHMENÜ "LEVEL 2" :

- Drücken Sie **OK**-Taste auf der Fernbedienung um das Grün-Gittermuster zu aktivieren. Dieses dient für den gesamten Abgleich als Referenz.
- Überprüfen Sie die Grün-Geometrie.
- Drücken Sie die rote Taste auf der Fernbedienung um das rote Gittermuster zu aktivieren. Der Cursor erscheint in der Mitte des roten Gitters.
- Mit den Pfeiltasten ("∧" hoch, " ▽ " runter, " < " links , " > " rechts) auf der Fernbedienung bringen Sie die Mitte des roten Cursors auf die Mitte des Bezugspunktes im grünen Gitter. Ein längeres Drücken der Pfeiltasten erhöht die Schrittgröße beim Abgleich.
- Drücken Sie die OK-Taste um auf die nächste Cursor-Position zu gelangen. Wiederholen Sie den Abgleich bis alle 25 Abgleichpunkte (der 25.Punkt ist links unten) korrigiert sind.

WICHTIG :

Wenn der letzte Punkt abgeglichen wurde:
- **Drücken Sie die OK-Taste nur einmal und warten Sie etwa 60s.**
Der Microprozessor berechnet alle Zwischen-positionen. Für etwa 10s geschieht nichts,dann verschwindet der Cursor für etwa 15s. Dann läuft der Cursor über alle Abgleichpunkte zurück in die Mitte des Gittermusters.



- Drücken Sie die EXIT-Taste um in das "LEVEL 2"-Menü zurückzukehren.
- Wählen Sie im Menü "RETURN".
- Wählen Sie im Konvergenzmenü "STORE" .
- Überprüfen Sie das Bild auf den Banding-Effekt (siehe Information auf Seite 32). Wiederholen Sie den Abgleich mit BLAU.

ABGLEICH LEVEL 3 :

- Jeden der 195 Abgleichpunkte auf dem Bildschirm erreichen Sie über die Zifferntastatur der Ferbedienung ("2" hoch, "8" runter, "4" links, "6" rechts).
- Der Konvergenzabgleich wird mittels der Pfeiltasten vorgenommen "(∧)" hoch, "(▽)" runter,"(◁)" links, "(▷)" rechts.
- Drücken Sie die EXIT-Taste um in das "LEVEL 2"-Menü zurückzukehren.
- Wählen Sie im Menü "RETURN".
- Wählen Sie im Konvergenzmenü "STORE".
- Überprüfen Sie das Bild auf den Banding-Effekt (siehe Information auf Seite 32).

WICHTIG :

> Nach dem Abgleich im Level 3 machen Sie keine Einstellungen mehr im Level 2, da sonst die Abgleichswerte des Level 3 gelöscht werden.

16:9 : Wählen Sie das 16:9 Format im Konvergenzmenü und wiederholen Sie den gesamten Abgleich.

Konvergenz-Defaultwerte :

Sollte der Konvergenzabgleich völlig inkorrekt sein, kann ein Neuabgleich ausgehend von den Fabrikswerten ratsam sein. Diese sind als Defaultwerte im NVM gespeichert.

Default Rot/Grün/Blau : die Defaultwerte der Konvergenz aller Farben sind im Konvergenz-RAM gespeichert.

Default Rot
Default Grün } Laden Sie die Defaultwerte einzein für Rot, Grün oder Blau.
Default Blau

Restore : die zuletzt in das NVM gespeicherten Werte werden ins Konvergenz-RAM kopiert.

Store : alle Werte aus dem Konvergenz-RAM in das NVM.

SERVICE MODE (I)

- Selezionare "CONVERGENCE"

- Selezionare « Alignement Mode ».
- Avviare la regolazione con formato 4:3.
- Selezionare « Level 2 ».
- Viene visualizzato il menu Level 2 alignement.

Nota :

La procedura deve essere effettuata anche in modo 16/9.

LIVELLO 2 MENU DI REGOLAZIONE :

- Premere il tasto **"OK"** sul telecomando. Viene visualizzata la griglia verde.
- Controllare che la geometria della griglia Verde sia corretta.
- Premere il tasto Rosso sul telecomando per regolare il Rosso con la griglia Verde come riferimento.
- Il cursore si trova al centro.
- Utilizzare i tasti su, giù sinistra e destra sul telecomando per regolare la posizione di allineamento.

Con una lunga pressione del tasto si determina un effetto di accelerazione del passo di allineamento.

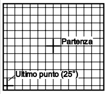
Dopo avere regolato il centro :

- Premere il tasto **"OK"** per selezionare la posizione successiva da regolare.Quando il secondo punto è stato regolato o la regolazione non è necessaria, premere il tasto **"OK"**.

Proseguire la procedura fino a raggiungere l'ultimo punto (25°) sulla parte inferiore sinistra.

IMPORTANTE :

- Quando l'ultimo punto viene regolato, premere il tasto **OK una sola volta ed attendere 60 secondi.**
Il microprocessore calcola tutte le posizioni intermedie: per 10 secondi non accade nulla. Quindi, il cursore scompare per 15 secondi. Il cursore si sposterà infine su tutte le posizioni fino al centro.



Premere « Exit » per ritornare al menu " Level 2 alignement ".
- Selezionare "Return": viene visualizzato il menu "Convergence Alignement".
- Memorizzare le regolazioni.
- Controllare la presenza d' « effetto Banding » (Vedere nota informativa). Seguire la medesima procedura per il blu.

LIVELLO 3 REGOLAZIONI :

- I 195 punti possono essere raggiunti mediante:
- L'uso dei tasti numerici RCU: 2 (su), 8 (giù), 6 (destra), e 4 (sinistra).
- La convergeznza viene regolata mediante i tasti up "(△)" , down "(∨)", left "(◁)" e right "(▷)".
- Uscire dal menu « Convergence alignement » e memorizzare le regolazioni acquisite.
- Controllare la presenza di effetto Banding (Vedere nota informativa).

IMPORTANTE ::

> Dopo avere regolato « level 3 » non utilizzare « level 2 » perchè le correzioni effettutuate al « level 3 » andrebbero perse.

16:9 :Selezionare 16:9 in Alignement Mode e ripetere la procedura.

Default di convergenza :

Se l'allineamento della convergenza è completamente errato le regolazioni possono essere effettuate richiamendo i valori di convergenza di fabbrica. Questi valori vengono memorizzati come valori di default in nella NVM.

Default Red/Green/Blue : Tutti i valori di default dei tre colori vengono memorizzati nell IC RAM di convergenza.

Default Red
Default Green } Carica i valori per rosso, verde e blu
Default Blue

Restore : Copia gli ultimi valori memorizzati dalla NVM nella RAM di convergenza.

Store : Copia i valori RAM nella convergenza della NVM.

SERVICE MODE (E)

- Seleccione "CONVERGENCIA"

- Seleccione "Modo de alineación".
- Inicie los ajustes con el formato "4:3"
- Seleccione "nivel 2"
  Aparece el menú de alineación de nivel 2.

Nota:

El procedimiento debe realizarse también para 16/9.

MENU DE ALINEACION "NIVEL 2":

- Pulse **"OK"** en el control remoto y aparecerá la rejilla verde.
- Compruebe si la geometría verde es correcta.
- Pulse el botón rojo en el control remoto para ajustar rojo con la rejilla verde como referencia.
  El cursor está en el centro.
- Ajuste la posición de la alineación con las teclas del control remoto para moverse hacia arriba, abajo, izquierda y derecha. Si las pulsa de forma prolongada, se produce un efecto de aceleración en el tamaño del paso de la alineación.

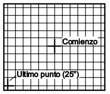
Después del ajuste del centro:

- Pulse **"OK"** para seleccionar la posición siguiente a ajustar.

Cuando se ajusta este segundo punto o el ajuste no es necesario, pulse **"OK"**.
Repita la operación hasta el último punto (nº 25) en la parte inferior izquierda.

IMPORTANTE :

Cuando se ajuste el último punto:
-Pulse **"OK" una vez y espere durante 60 segundos.**
El microprocesador calcula todas las posiciones intermedias: durante 10 segundos no ocurre nada. Después, el cursor desaparece durante 15 segundos, y finalmente se mueve a todas las posiciones hasta el centro.



- Pulse "Salida" para volver al menú "Nivel 2".
- Seleccione Return: aparece el menú de alineación de convergencia.
- Almacene.
- Compruebe si se produce el efecto de banda (vea la nota de información).Siga el mismo procedimiento para azul.

ALINEACION NIVEL 3 :

Se pueden alcanzar los 195 puntos:
- Utilice los botones de número RCU: 2 (arriba), 8 (abajo), 6 (derecha) y 4 (izquierda).
- La convergencia se ajusta mediante las teclas de navegación hacia arriba, abajo, izquierda y derecha.
- Salida a almacenar y menú de alineación de convergencia.
- Compruebe si se produce el efecto de banda (vea la nota de información)

IMPORTANTE ::

> Una vez configurado el "nivel 3", no utilice el "nivel 2" o perderá las correcciones efectuadas en el 3.

16:9 Seleccione 16:9 en el modo de alineación y repita el procedimiento

Parámetros de convergencia por defecto:

Si la alineación de convergencia es totalmente errónea, la mayor parte de los ajustes se pueden realizar con los valores de convergencia de fábrica.Estos parámetros se almacenan como valores por defecto en una memoria no volátil.

Default Red/Green/Blue :todos los valores por defecto de los tres colores se almacenan en la memoria de acceso aleatorio (RAM) IC de convergencia.

Default Red
Default Green } Cargue los valores para rojo, verde o azul.
Default Blue

Restore : copia los últimos valores almacenados de la memoria no volátil a la RAM de convergencia

Store : copia los valores RAM en la NVM de convergencia.

Note :

In the event of it being necessary to replace all three tubes (tubes marked or still operational), it is easier, when making convergence adjustments, to replace one tube first, and converge it to the two other tubes in order to keep the original geometry setting.
Then replace the two other tubes and realign them to the reference tube.

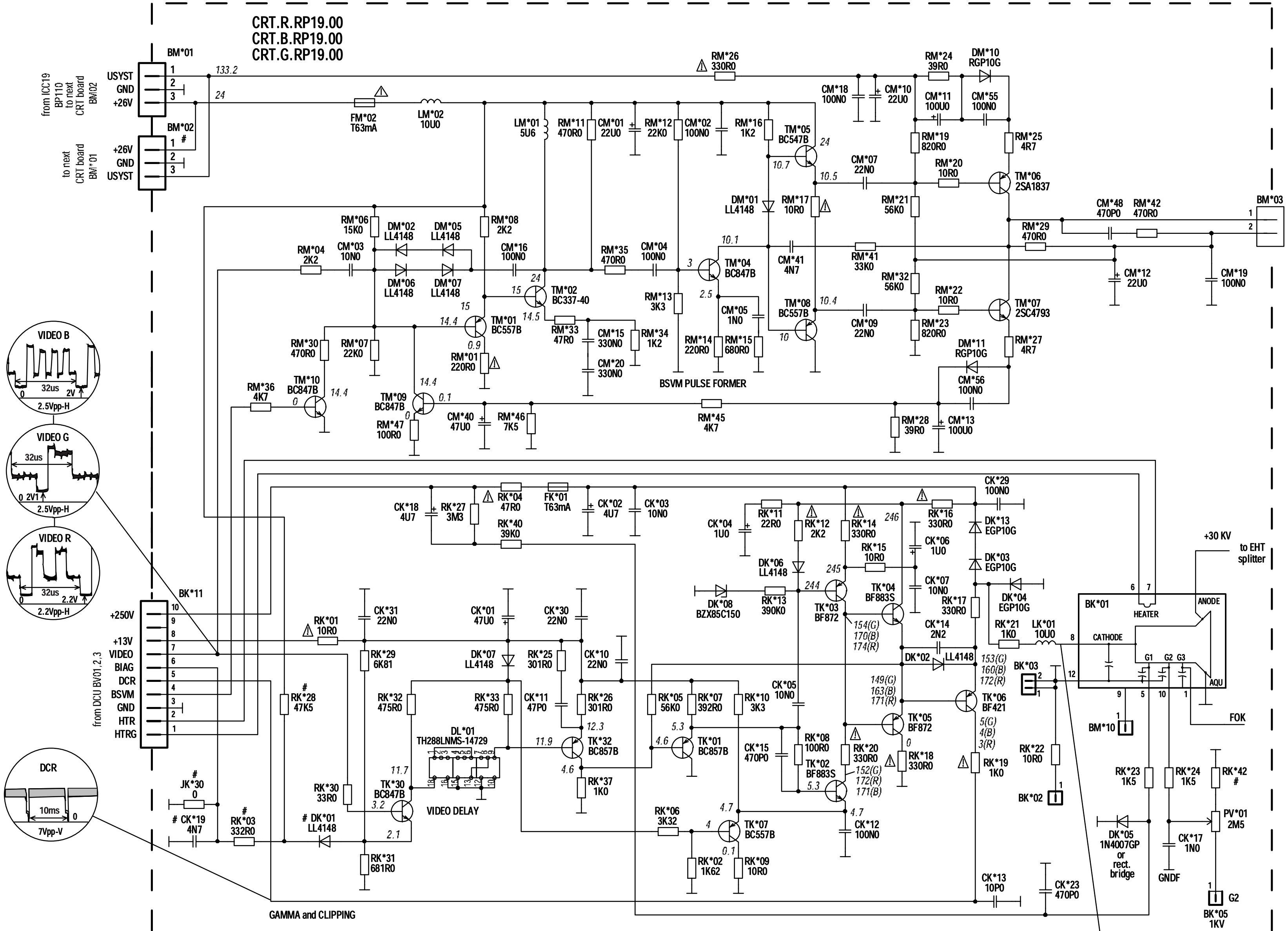
En cas de nécessité de changement des trois tubes (tubes marqués ou encore fonctionnels) il est plus simple, au niveau du réglage des convergences, de changer d'abord un tube, de le converger sur les deux autres pour conserver le réglage de géométrie original.
Ensuite changer les deux autres tubes et les réaligner sur le tube de référence.

Im Falle, daß ein Auswechseln aller drei Röhren notwendig ist, ist es einfacher (falls die Röhren noch funktionsfähig sind), die notwendige Konvergenzeinstellung so vorzunehmen, daß zunächst erst eine Röhre ausgewechselt wird: Gleichen Sie diese den beiden alten Röhren an, damit Sie die originale geometrische Einstellung haben.
Wechseln Sie dann die beiden anderen Röhren und gleichen Sie diese der Referenzröhre an.

Nel caso in cui si renda necessaria la sostituzione dei tre tubi (tubi marcati o ancora in funzione) è più semplice, quando si eseguono regolazioni della convergenza, sostituire prima un tubo e convergerlo agli altri due per conservare la regolazione di geometria iniziale. Sostituire quindi gli altri due tubi e riallinearli al tubo di riferimento.

Si necesita cambiar los 3 tubos (tubos marcados o aún funcionales), resulta más fácil, en lo que respecta al ajuste de las convergencias, cambiar primero un tubo y convergirlo sobre los otros 2 para mantener la configuración de la geometría original.
Cambie seguidamente los otros dos tubos y proceda a realinearlos con el tubo de referencia.

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO


CRT.R.RP19.00
CRT.B.RP19.00
CRT.G.RP19.00
BM*01
USYST
GND
+26V
from ICC19 BP110 to next CRT board BM02
BM*02
to next CRT board BM*01
133.2
24
FM*02 T63mA
LM*02 10U0
RM*26 330R0
RM*24 39R0
DM*10 RGP10G
CM*18 100N0
CM*10 22U0
CM*11 100U0
CM*55 100N0
LM*01 5U6
RM*11 470R0
CM*01 22U0
RM*12 22K0
CM*02 100N0
RM*16 1K2
TM*05 BC547B
RM*19 820R0
RM*25 4R7
CM*07 22N0
RM*20 10R0
TM*06 2SA1837
DM*01 LL4148
RM*17 10R0
RM*21 56K0
CM*48 470P0
RM*42 470R0
BM*03
to BSVM coil 4uH
RM*29 470R0
RM*06 15K0
DM*02 LL4148
DM*05 LL4148
RM*08 2K2
RM*04 2K2
CM*03 10N0
CM*16 100N0
RM*35 470R0
CM*04 100N0
TM*04 BC847B
CM*41 4N7
RM*41 33K0
RM*32 56K0
CM*12 22U0
CM*19 100N0
DM*06 LL4148
DM*07 LL4148
TM*02 BC337-40
RM*13 3K3
CM*05 1N0
TM*08 BC557B
RM*22 10R0
TM*07 2SC4793
TM*01 BC557B
RM*33 47R0
CM*15 330N0
RM*34 1K2
RM*14 220R0
RM*15 680R0
CM*09 22N0
RM*23 820R0
RM*27 4R7
RM*30 470R0
RM*07 22K0
RM*01 220R0
CM*20 330N0
DM*11 RGP10G
CM*56 100N0
BSVM PULSE FORMER
RM*36 4K7
TM*10 BC847B
TM*09 BC847B
RM*47 100R0
CM*40 47U0
RM*46 7K5
RM*45 4K7
RM*28 39R0
CM*13 100U0
VIDEO B
32us
2V
2.5Vpp-H
VIDEO G
2V1
VIDEO R
2.2V
2.2Vpp-H
DCR
10ms
7Vpp-V
CK*29 100N0
CK*18 4U7
RK*27 3M3
RK*04 47R0
FK*01 T63mA
CK*02 4U7
CK*03 10N0
RK*40 39K0
CK*04 1U0
RK*11 22R0
RK*12 2K2
RK*14 330R0
RK*16 330R0
DK*13 EGP10G
CK*06 1U0
RK*15 10R0
DK*06 LL4148
DK*03 EGP10G
DK*08 BZX85C150
RK*13 390K0
TK*03 BF872
TK*04 BF883S
CK*07 10N0
RK*17 330R0
DK*04 EGP10G
+30 KV
to EHT splitter
BK*11
+250V
+13V
VIDEO
BIAG
DCR
BSVM
GND
HTR
HTRG
from DCU BV01.2.3
RK*01 10R0
CK*31 22N0
CK*01 47U0
CK*30 22N0
CK*14 2N2
RK*21 1K0
LK*01 10U0
BK*01
HEATER
ANODE
CATHODE
G1 G2 G3
AQU
RK*29 6K81
DK*07 LL4148
RK*25 301R0
CK*10 22N0
DK*02 LL4148
BK*03
RK*28 47K5
RK*32 475R0
RK*33 475R0
CK*11 47P0
RK*26 301R0
RK*05 56K0
RK*07 392R0
RK*10 3K3
CK*05 10N0
TK*06 BF421
FOK
DL*01 TH288LNMS-14729
TK*32 BC857B
TK*01 BC857B
TK*05 BF872
BM*10
RK*08 100R0
RK*20 330R0
RK*18 330R0
RK*19 1K0
RK*22 10R0
RK*23 1K5
RK*24 1K5
RK*42 #
JK*30 0
TK*30 BC847B
CK*15 470P0
TK*02 BF883S
BK*02
VIDEO DELAY
CK*19 4N7
RK*03 332R0
DK*01 LL4148
RK*30 33R0
RK*06 3K32
TK*07 BC557B
CK*12 100N0
PV*01 2M5
DK*05 1N4007GP or rect. bridge
CK*17 1N0
RK*31 681R0
RK*02 1K62
RK*09 10R0
CK*13 10P0
CK*23 470P0
GNDF
G2
BK*05 1KV
GAMMA and CLIPPING

CRT R RP19 00 : * = 1
CRT B RP19 00 : * = 2
CRT G RP19 00 : * = 3

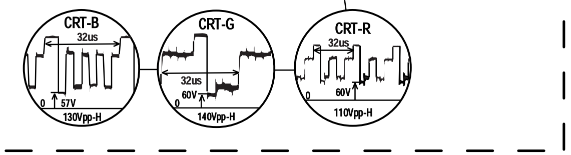
#	BM*02	CK*19	DK*01	JK*30	RK*03	RK*28	RK*42
CRT R RP19 00	-	-	-	X	-	-	1M5
CRT B RP19 00	X	X	X	-	X	X	2M2
CRT G RP19 00	X	-	-	X	-	-	1M5

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

⚠ Safety Part
When repairing, use original part only

⚠ Piece de securite
N'utilisez que les pieces d'origine

DC Voltages :
4.7 : CRT G/R/B
4.7 (G) : CRT G
4.7 (B) : CRT B
4.7 (R) : CRT R
☼ + ◔ + ◑ = 50%

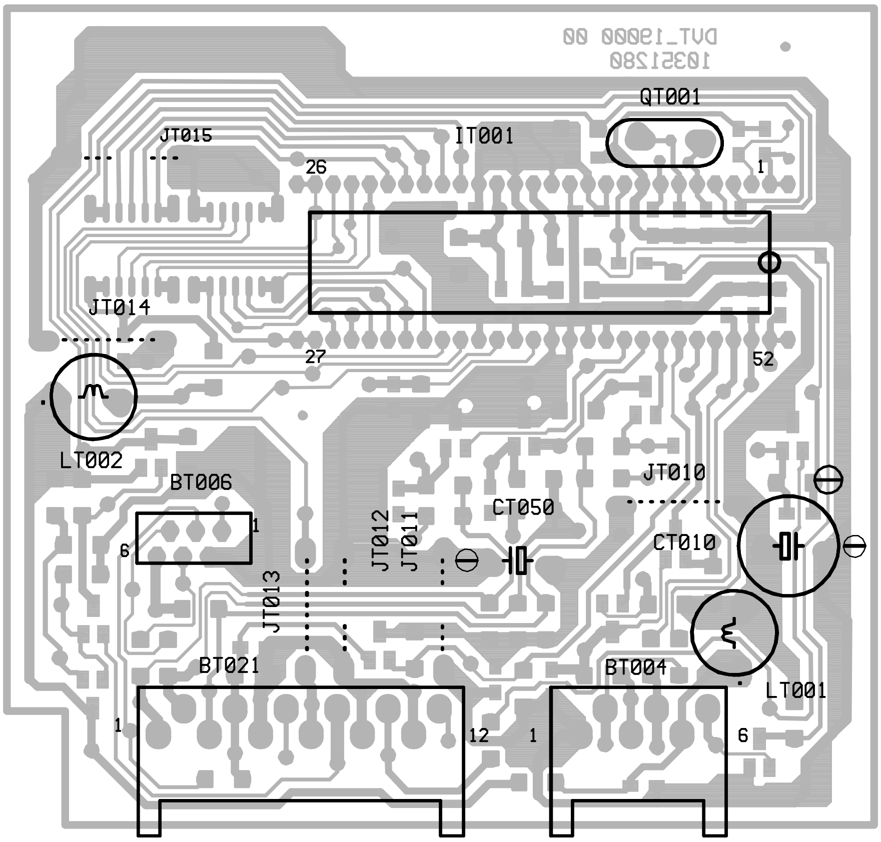


RP C19
First issue 07 / 98

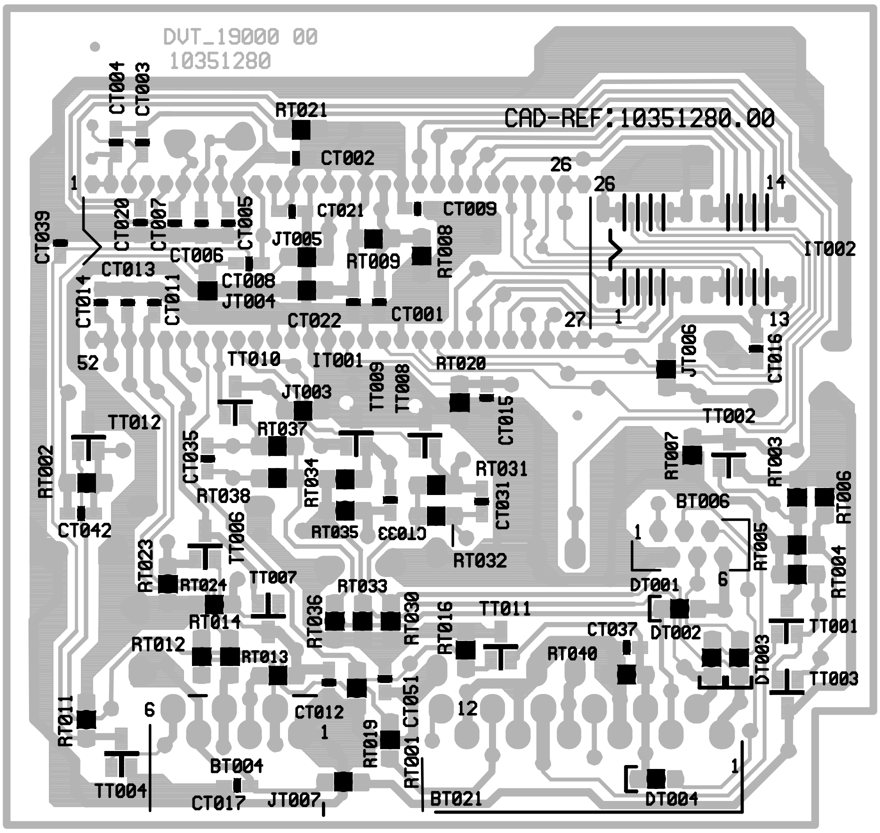
MC-Service

DVT 19000

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES


QT001
JT015
IT001
26
1
JT014
27
52
LT002
BT006
1
6
JT010
CT050
CT010
JT012
JT011
JT013
BT021
BT004
LT001
1
12
1
6

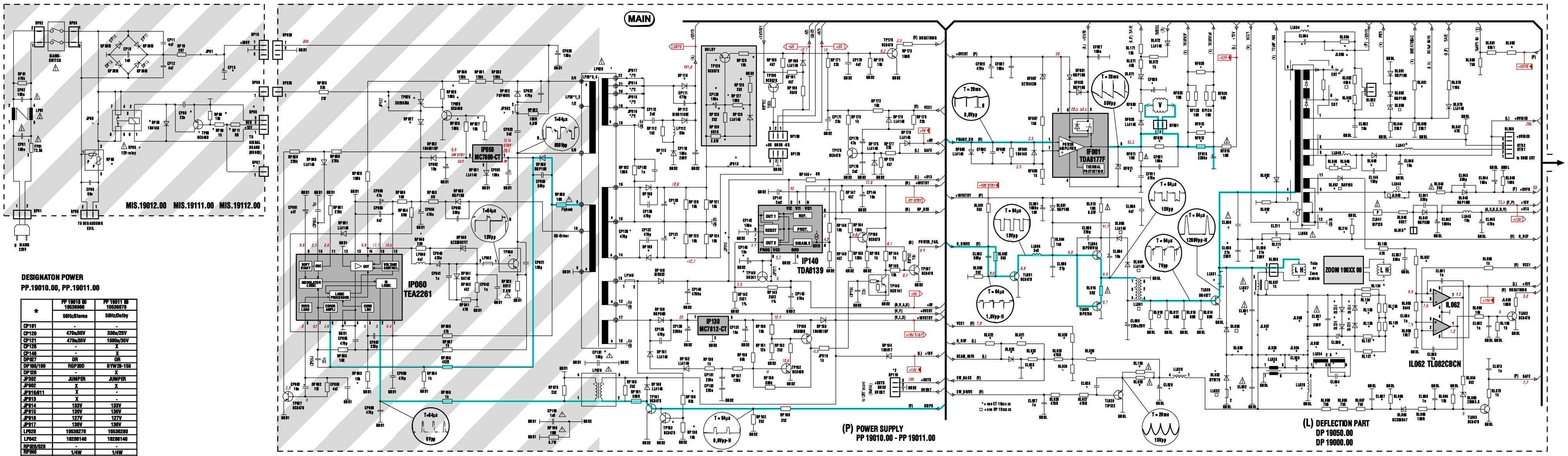
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


DVT_19000 00
10351280
CT004
CT003
RT021
CAD-REF:10351280.00
CT002
26
26
14
1
CT021
CT009
CT039
CT020
CT007
CT005
JT005
RT009
RT008
IT002
CT006
CT013
CT008
JT004
CT014
CT011
CT022
CT001
27
1
13
52
TT010
IT001
TT009
TT008
RT020
JT006
CT016
JT003
CT015
TT012
RT037
TT002
RT002
CT035
RT031
RT007
RT003
RT034
RT038
CT031
BT006
RT006
CT042
RT035
CT033
1
RT005
RT023
TT006
RT032
RT004
TT007
RT024
RT033
DT001
6
RT014
RT036
RT030
RT016
TT011
CT037
DT002
TT001
RT012
RT013
RT040
DT003
TT003
RT011
6
CT012
12
1
RT019
CT051
RT001
BT004
TT004
1
CT017
JT007
BT021
DT004

ICC19 50 Hz
First issue 09 / 97

MC-Service

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA



DESIGNATON POWER
PP.19010.00, PP.19011.00

*	PP 19010 00 10536960 50Hz/Stereo	PP 19011 00 10536970 50Hz/Dolby
CP101	-	-
CP120	470u/35V	330u/25V
CP121	470u/35V	1000u/35V
CP126	-	X
CP146	-	X
DP027	0R	0R
DP108/109	RGP30D	BYW29-150
DP126	-	X
JP302	JUMPER	JUMPER
JP902	X	X
JP910/911	X	-
JP913	X	-
JP914	133V	133V
JP915	130V	130V
JP916	127V	127V
JP917	136V	136V
LP020	10536270	10536280
LP042	10286140	10286140
RP026/028	-	-
RP040	1/4W	1/4W
RP063	X	X
RP126/130	-	X
RP138	-	-
RP139	-	-
RP146	-	X
TP025/026	-	-
TP060	BUV48CFI	BUV48CFI
TP129	-	X
TP162	-	-

X Inserted
– Not inserted

▨ Part of board connected to mains supply.
Partie du chassis reliée au secteur.
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectada a la red.

⚠ Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

Note :
Power Supply primary circuit measurements.
- Use only (GND1) connection point.

Attention :
Mesure dans le bloc alimentation
- Utiliser la masse du bloc alimentation (GND1).

Achtung :
Bei Messungen im Primärnetzteil
- Primärnetzteilmasse verwenden (GND1).

Attenzione :
misure nell'alimentatore primario
- usare massa alimentazione primario (GND1).

Cuidado :
Medida en el bloque de alimentacion
- Utilizar la masa del bloque de alimentacion (GND1).

⚠ Use isolating mains transformer
Utilise un transformateur isolateur du secteur
Einen Trenntrafo verwenden
Utilizar un transformador aislador de red
Utilizzare un transformatore per isolarvi dalla rete

□	Deflection - Basic Partlists 50Hz ZOOM DP 19050 00 10 34 99 70	 50Hz DP 19000 00 10 34 99 60
BL052	X	–
DL003/04	X	X
DL032	BYW76	BYW76
DL050	BZX85C22	BZX85C22
DL057	X	X
JL943	X	X
LL001	10 51 81 10	10 51 81 10
LL032	JUMPER	JUMPER
LL043	–	–
RL018	–	–
RL052	–	X

X Inserted
– Not inserted

*	Deflection - Picture Tube related Partlists CT 19003 32 10 35 15 20 28"MP AK	 CT 19032 37 10 39 10 10 28"SF INVAR 32"SF INVAR	 CT 19005 31 10 51 08 90 25"SF INVAR 29"SF INVAR	 CT 19006 31 10 35 18 40 33"MP AK
BL013	–	–	–	–
BL052	–	–	–	–
CF002	1n5	1n5	1n5	1n5
CF028	1u0	10u0	1u0	1u0
CL023	10n	10n	10n	10n
CL028	47n	47n	1n5	1n5
CL029	4u7	4u7	3u3	3u3
CL030	1n9/2KV	1n9/2KV	1n9/2KV	2n7/2KV
CL031	12n8/1K6V	12n8/1K6V	14n4/1K6V	14n4/1K6V
CL032	24n0/1K0V	24n0/1K0V	33n0/1K0V	33n0/1K0V
CL033	1u5/160V	1u5/160V	–	–
CL034	–	–	–	–
CL036	1u0	–	1u0	1u0
CL037	680n/400V	–	510n/250V	560n/250V
CL067	100n0	1u0	100n0	100n0
CL084	4n7/250V	4n7/250V	4n7/250V	4n7/250V
CL211	–	–	–	–
DF011	DTRANS 56.0V	DTRANS 56.0V	DTRANS 56.0V	DTRANS 56.0V
DL023	BAV103	BAV103	BAV103	BAV103
DL032	–	–	–	–
DL034/36	–	–	–	–
DL046	RGP10M	RGP10M	RGP10M	RGP10M
DL057	–	–	–	–
DL071	BZX55C27	BZX55B16	BZX55C27	BZX55C27
DL092	–	–	–	–
DL334/36	RGP10G	–	RGP10G	RGP10G
JL932	X	X	X	X
JL933	X	X	X	X
JL934	–	–	X	X
JL936	–	X	–	–
JL985	–	–	–	–

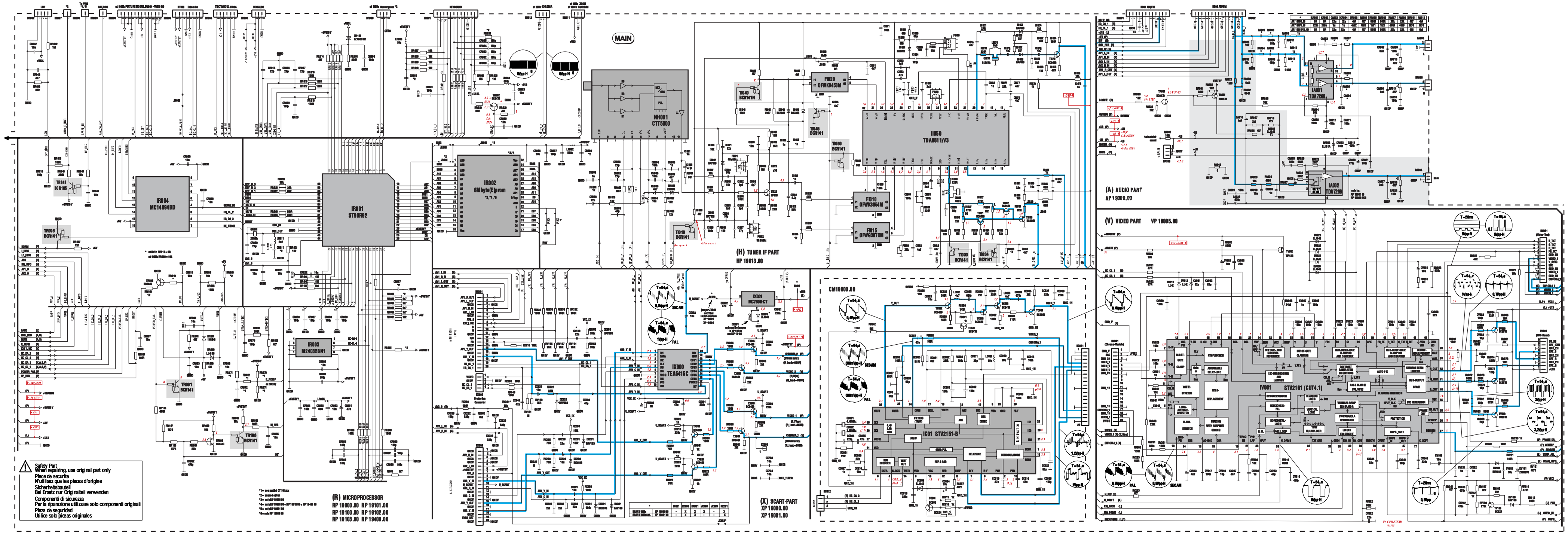
Note : the last two numbers of the CT xxxx part list name indicates the system voltage.
e.g. CT 19005 31 Usys 131V →

Nota: Los dos últimos números de la denominación CT xxxx, indica la tensión Usys
e.g. CT 19005 31 Usys 131V →

*	Deflection - Picture Tube related Partlists CT 19003 32 28"MP AK	 CT 19032 37 28"SF INVAR 32"SF INVAR	 CT 19005 31 25"SF INVAR 29"SF INVAR	 CT 19006 31 33"MP AK
LL008	10 51 77 40	10 51 77 50	10 51 77 20	10 51 77 20
LL029	10 09 50 60	10 09 50 60	10 37 74 20	10 37 74 20
LL031	LFBEAD 90R	LFBEAD 90R	LFBEAD 90R	LFBEAD 90R
LL033	–	–	–	–
LL034	–	–	–	–
LL037	50 87 32 54	10 52 61 40	50 87 32 54	50 87 32 54
LL046	–	–	–	–
LL047	26u0	23u0	26u0	26u0
LL084	24u0	24u0	24u0	24u0
RF002	–	–	–	–
RF012	1R5	1R5	1R5	1R5
RF013	1R5	1R5	1R5	1R5
RF020	220R0	–	220R0	220R0
RF025	221R0	240R0	91R0	91R0
RF036	1K0	470R0	1K0	1K0
RL020	3k09	3k09	3k09	3k09
RL023	120k0	120k0	100k0	100k0
RL024	1k62	1k62	1k62	1k62
RL026	37k4	37k4	37k4	37k4
RL029	2R2	2R2	2R2	2R2
RL046/48	0R	0R	0R	0R
RL051	750k0	750k0	750k0	750k0
RL053	30k0	–	5k1	18K0
RL057	39k2	40k2	40k2	40k2
RL066	–	220k0	–	–
RL082	56k2	61k9	56k2	56k2
RL084	12R0	12R0	12R0	12R0
RL092	–	–	–	–
RL124/25	3K3	–	3K3	3K3
RL126/27	3K3	–	3K3	3K3
RL129	–	–	–	–
RL134/35	3K3	–	3K3	3K3
RL136/37	3K3	–	3K3	3K3
RL211	12k0	12k0	12k0	12k0
RL214	2k7	2k7	2k7	2k7
TL030	BUV48CFITH16	BUV48CFITH16	BUV48CFITH16	BUV48CFITH16
ZOOM	–	10 39 10 40		–

ICC19 50 Hz

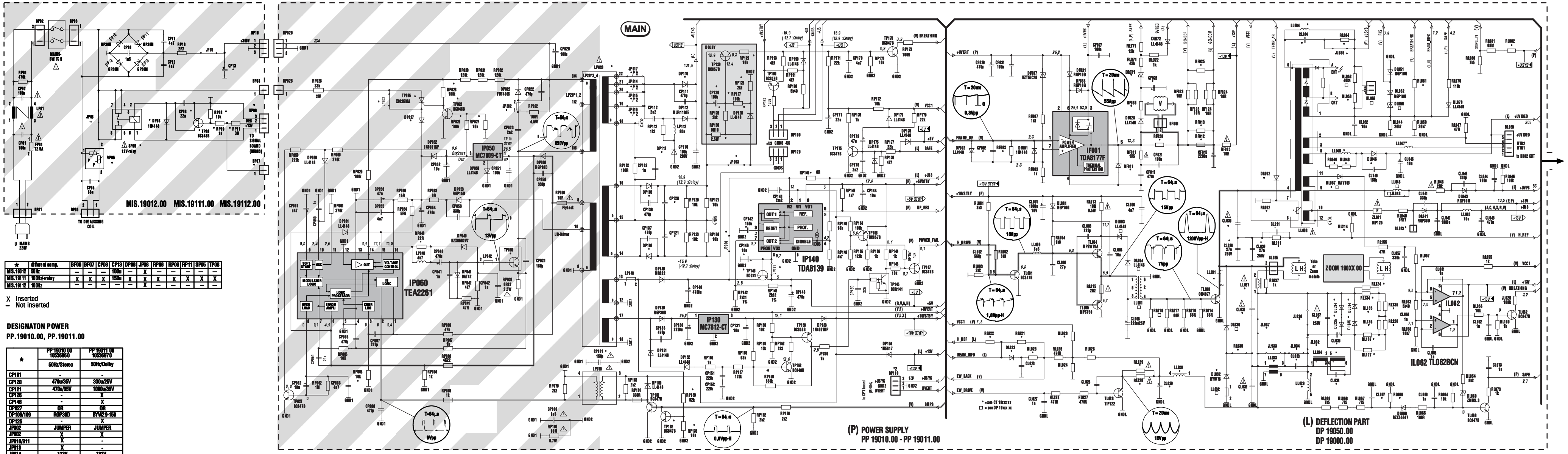
COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA


MAIN
IR001 ST80R02
IR002 8Kbyte(E)prom
IR004 MC14094BD
IR003 M24C32BN1
KH001 CTT5000
II050 TDA9811/V3
FI020 OFWK9453M
FI010 OFWK3954M
FI015 OFWG3970M
(H) TUNER IF PART
HP 19013.00
(R) MICROPROCESSOR
RP 19000.00 RP 19101.00
RP 19100.00 RP 19102.00
RP 19103.00 RP 19400.00
IX000 TEA6415C
IX001 MC7809CT
(X) SCART-PART
XP 19000.00
XP 19001.00
CM19000.00
IC81 STV2151-B
(A) AUDIO PART
AP 19000.00
IA001 TDA7266
IA002 TDA7266
(V) VIDEO PART VP 19005.00
IV001 STV2161 (CUT4.1)

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

ICC19 50 Hz

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA



*	different comp.	BP06	BP07	CP08	CP13	DP08	JP08	RP08	RP09	RP11	SP05	TP08
MIS.19012	50Hz	–	–	–	100u	–	X	–	–	–	–	–
MIS.19111	100Hz/+relay	X	X	X	150u	X	X	X	X	X	X	X
MIS.19112	100Hz	–	–	–	–	–	X	–	–	–	–	–

X Inserted
– Not inserted

DESIGNATON POWER
PP.19010.00, PP.19011.00

*	PP 19010 00 10536960	PP 19011 00 10536970
	50Hz/Stereo	50Hz/Dolby
CP101	-	-
CP120	470u/35V	330u/25V
CP121	470u/35V	1000u/35V
CP126	-	X
CP146	-	X
DP027	0R	0R
DP108/109	RGP30D	BYW29-150
DP126	-	X
JP302	JUMPER	JUMPER
JP902	X	X
JP910/911	X	-
JP913	X	-
JP914	133V	133V
JP915	130V	130V
JP916	127V	127V
JP917	136V	136V
LP020	10536270	10536280
LP042	10286140	10286140
RP026/028	-	-
RP040	1/4W	1/4W
RP063	X	X
RP126/130	-	X
RP138	-	-
RP139	-	-
RP146	-	X
TP025/026	-	-
TP060	BUV48CFI	BUV48CFI
TP129	-	X
TP162	-	-

X Inserted
– Not inserted

▨ Part of board connected to mains supply.
Partie du chassis reliée au secteur.
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectada a la red.

⚠ Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

Note :
Power Supply primary circuit measurements.
- Use only (GND1) connection point.

Attention :
Mesure dans le bloc alimentation
- Utiliser la masse du bloc alimentation (GND1).

Achtung :
Bei Messungen im Primärnetzteil
- Primärnetzteilmasse verwenden (GND1).

Attenzione :
misure nell'alimentatore primario
- usare massa alimentazione primario (GND1).

Cuidado :
Medida en el bloque de alimentacion
- Utilizar la masa del bloque de alimentacion (GND1).

⚠ Use isolating mains transformer
Utilise un transformateur isolateur du secteur
Einen Trenntrafo verwenden
Utilizar un transformador aislador de red
Utilizzare un transformatore per isolarvi dalla rete

	Deflection - Basic Partlists	
□	50Hz ZOOM DP 19050 00 10 34 99 70	50Hz DP 19000 00 10 34 99 60
BL052	X	–
DL003/04	X	X
DL032	BYW76	BYW76
DL050	BZX85C22	BZX85C22
DL057	X	X
JL943	X	X
LL001	10 51 81 10	10 51 81 10
LL032	JUMPER	JUMPER
LL043	–	–
RL018	–	–
RL052	–	X

X Inserted
– Not inserted

Deflection - Picture Tube related Partlists

*	CT 19003 32 10 35 15 20 28"MP AK	CT 19032 37 10 39 10 10 28"SF INVAR 32"SF INVAR	CT 19005 31 10 51 08 90 25"SF INVAR 29"SF INVAR	CT 19006 31 10 35 18 40 33"MP AK
BL013	–	–	–	–
BL052	–	–	–	–
CF002	1n5	1n5	1n5	1n5
CF028	1u0	10u0	1u0	1u0
CL023	10n	10n	10n	10n
CL028	47n	47n	1n5	1n5
CL029	4u7	4u7	3u3	3u3
CL030	1n9/2KV	1n9/2KV	1n9/2KV	2n7/2KV
CL031	12n8/1K6V	12n8/1K6V	14n4/1K6V	14n4/1K6V
CL032	24n0/1K0V	24n0/1K0V	33n0/1K0V	33n0/1K0V
CL033	1u5/160V	1u5/160V	–	–
CL034	–	–	–	–
CL036	1u0	–	1u0	1u0
CL037	680n/400V	–	510n/250V	560n/250V
CL067	100n0	1u0	100n0	100n0
CL084	4n7/250V	4n7/250V	4n7/250V	4n7/250V
CL211	–	–	–	–
DF011	DTRANS 56.0V	DTRANS 56.0V	DTRANS 56.0V	DTRANS 56.0V
DL023	BAV103	BAV103	BAV103	BAV103
DL032	–	–	–	–
DL034/36	–	–	–	–
DL046	RGP10M	RGP10M	RGP10M	RGP10M
DL057	–	–	–	–
DL071	BZX55C27	BZX55B16	BZX55C27	BZX55C27
DL092	–	–	–	–
DL334/36	RGP10G	–	RGP10G	RGP10G
JL932	X	X	X	X
JL933	X	X	X	X
JL934	–	–	X	X
JL936	–	X	–	–
JL985	–	–	–	–

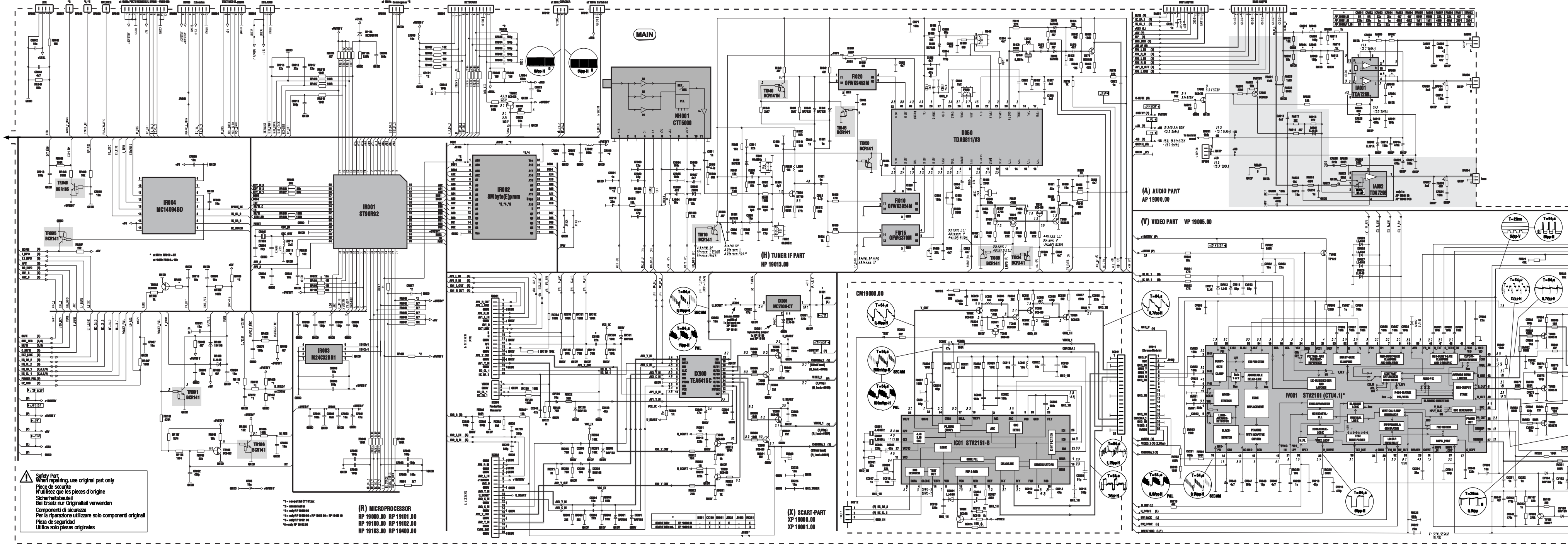
Note : the last two numbers of the CT xxxx part list name indicates the system voltage.
e.g. CT 19005 31 Usys 131V →

Nota: Los dos últimos números de la denominación CT xxxx, indica la tensión Usys
e.g. CT 19005 31 Usys 131V →

Deflection - Picture Tube related Partlists

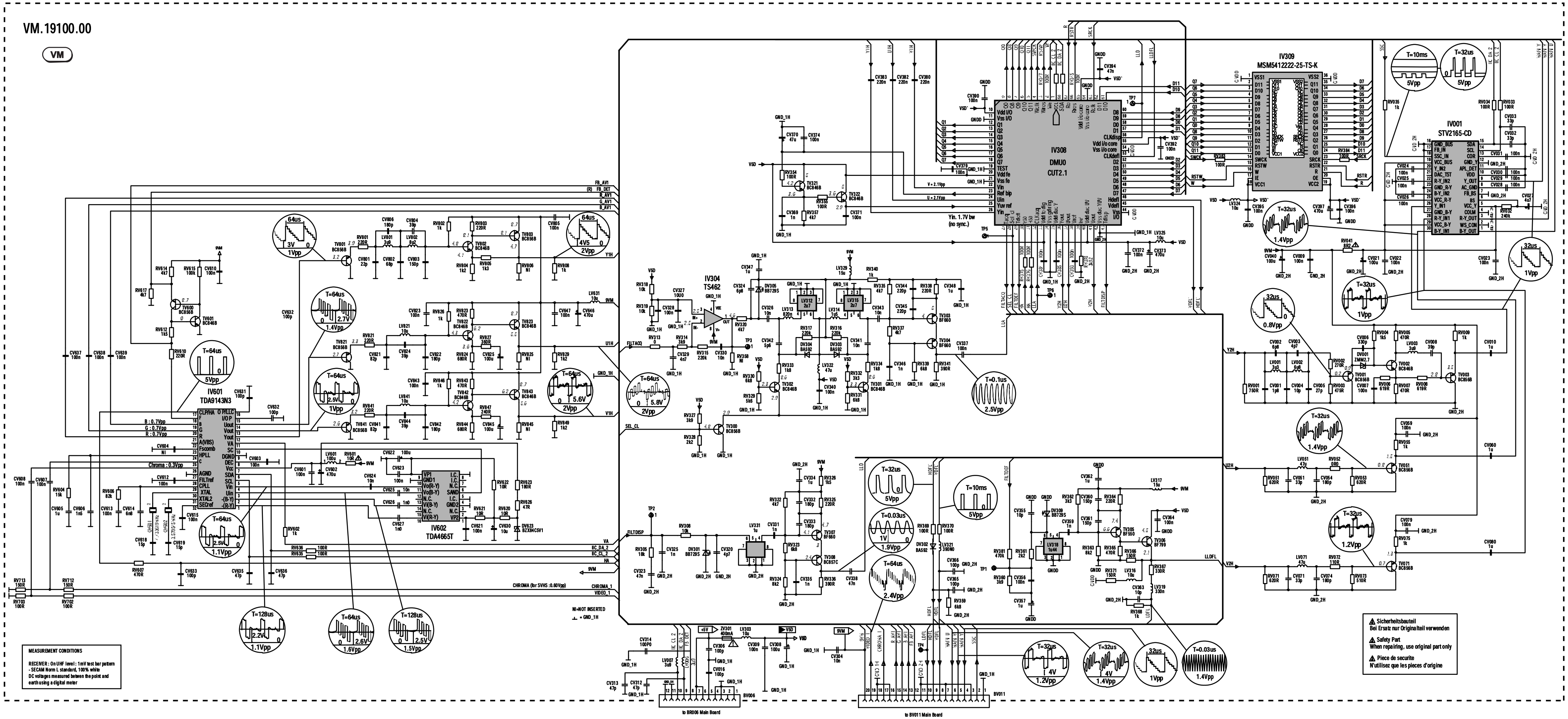
*	CT 19003 32 28"MP AK	CT 19032 37 28"SF INVAR 32"SF INVAR	CT 19005 31 25"SF INVAR 29"SF INVAR	CT 19006 31 33"MP AK
LL008	10 51 77 40	10 51 77 50	10 51 77 20	10 51 77 20
LL029	10 09 50 60	10 09 50 60	10 37 74 20	10 37 74 20
LL031	LFBEAD 90R	LFBEAD 90R	LFBEAD 90R	LFBEAD 90R
LL033	–	–	–	–
LL034	–	–	–	–
LL037	50 87 32 54	10 52 61 40	50 87 32 54	50 87 32 54
LL046	–	–	–	–
LL047	26u0	23u0	26u0	26u0
LL084	24u0	24u0	24u0	24u0
RF002	–	–	–	–
RF012	1R5	1R5	1R5	1R5
RF013	1R5	1R5	1R5	1R5
RF020	220R0	–	220R0	220R0
RF025	221R0	240R0	91R0	91R0
RF036	1K0	470R0	1K0	1K0
RL020	3k09	3k09	3k09	3k09
RL023	120k0	120k0	100k0	100k0
RL024	1k82	1k62	1k62	1k62
RL026	37k4	37k4	37k4	37k4
RL029	2R2	2R2	2R2	2R2
RL046/48	0R	0R	0R	0R
RL051	750k0	750k0	750k0	750k0
RL053	30k0	–	5k1	18K0
RL057	39k2	40k2	40k2	40k2
RL066	–	220k0	–	–
RL082	56k2	61k9	56k2	56k2
RL084	12R0	12R0	12R0	12R0
RL092	–	–	–	–
RL124/25	3K3	–	3K3	3K3
RL126/27	3K3	–	3K3	3K3
RL129	–	–	–	–
RL134/35	3K3	–	3K3	3K3
RL136/37	3K3	–	3K3	3K3
RL211	12k0	12k0	12k0	12k0
RL214	2k7	2k7	2k7	2k7
TL030	BUV48CFITH16	BUV48CFITH16	BUV48CFITH16	BUV48CFITH16
ZOOM	–	10 39 10 40		–

COMPLETE PCB DIAGRAM - SCHEMA PLATINE PRINCIPALE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA


MAIN
NH001
CTT5000
TI040
BCR141N
FI020
OFWK9453M
TI045
BCR141
TI050
BCR141
II050
TDA9811/V3
FI010
OFWK3954M
FI015
OFWG370M
TI010
BCR141
TI033
BCR141
TI034
BCR141
(H) TUNER IF PART
HP 19013.00
IR004
MC14094BD
IR001
ST90R92
IR002
8M byte(E)prom
IR003
M24C32BN1
TR091
BCR141
TR106
BCR141
*1 = see partlist CT 101xxx
*2 = unused option
(R) MICROPROCESSOR
RP 19000.00 RP 19101.00
RP 19100.00 RP 19102.00
RP 19103.00 RP 19400.00
IX900
TEA6415C
IX001
MC7809-CT
(X) SCART-PART
XP 19000.00
XP 19001.00
CM19000.00
IC01 STV2151-B
IA001
TDA7269
IA002
TDA7298
(A) AUDIO PART
AP 19000.00
(V) VIDEO PART VP 19005.00
IV001 STV2161 (CTU4.1)*
T=64µs
0,7Vpp-H
1,2Vpp-H
1Vpp-H
0,4Vpp-H
500mVpp-H
SECAM
PAL
T=20ms
5Vpp-V

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

VIDEO MODULE - MODULE VIDEO - VIDEO BAUSTEIN - MODULO VIDEO - MÓDULO VIDEO
VM 19100


VM.19100.00
VM
IV601
TDA9143N3
IV602
TDA4665T
IV304
TS462
IV308
DMU0
CUT2.1
IV309
MSM5412222-25-TS-K
IV001
STV2165-CD
B : 0.7Vpp
G : 0.7Vpp
R : 0.7Vpp
Chroma : 0.3Vpp
CHROMA (for SVHS : 0.80Vpp)
CHROMA_1
VIDEO_1
Yin. 1.7V bw
(no sync.)
NI=NOT INSERTED
= GND_1H
to BR006 Main Board
to BV011 Main Board
BV006
BV011
T=64us
T=32us
T=10ms
T=128us
T=0.1us
T=0.03us
5Vpp
1Vpp
2Vpp
1.4Vpp
1.1Vpp
1.6Vpp
1.5Vpp
1.2Vpp
0.8Vpp
1.9Vpp
2.4Vpp
2.5Vpp

MEASUREMENT CONDITIONS

RECEIVER : On UHF level : 1mV test bar pattern
- SECAM Norm L standard, 100% white
DC voltages measured betwen the point and
earth using a digital meter

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

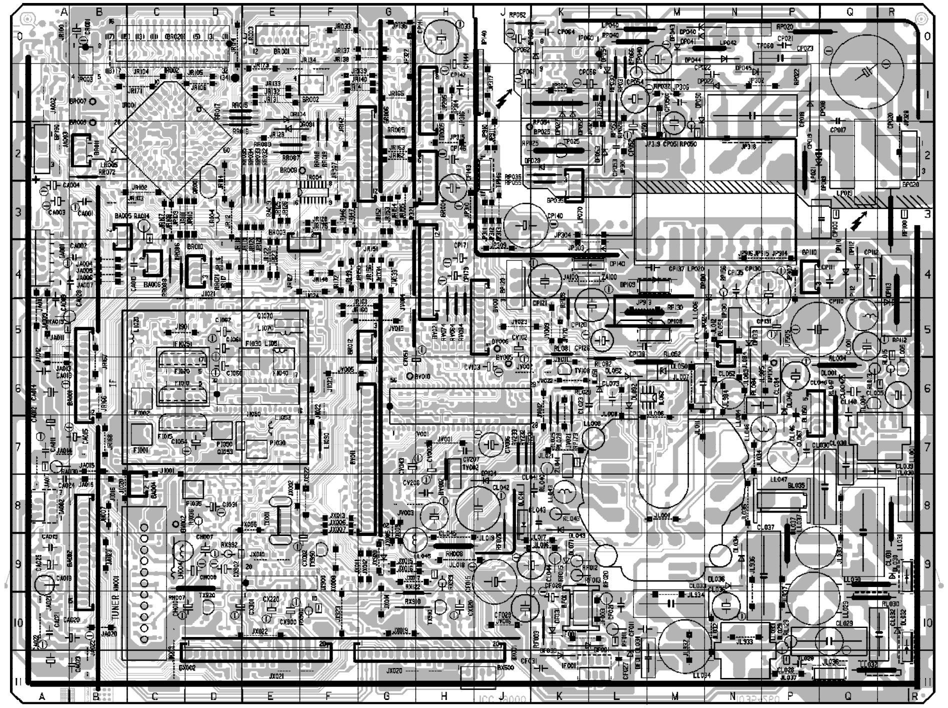
⚠ Safety Part
When repairing, use original part only

⚠ Piece de securite
N'utilisez que les pieces d'origine

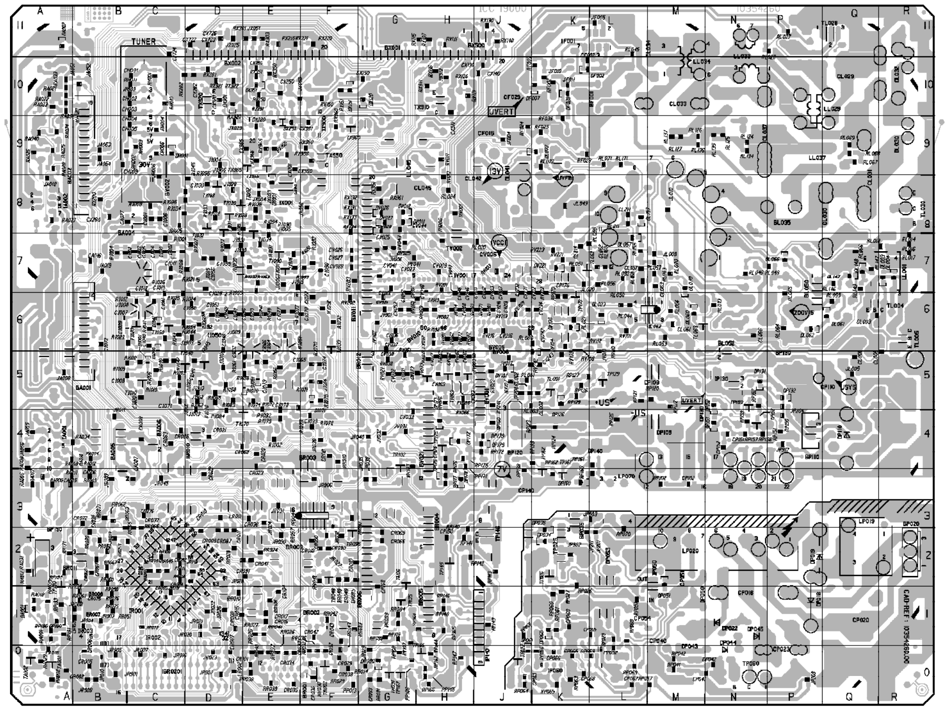
MC-Service

MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



COMPONENTS LOCATION - LOCALISATION DES ELEMENTS - LAGE DER BAUTEILE - LOCALIZZAZIONE DEGLI ELEMENTI - LOCALIZACION DE LOS COMPONENTES

* SOLDER SIDE - COTE CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE

1	2	3

BA001	B6
BA002	B9
BA004	C8
BA005	B3
BA006	C4
BF001	K10
BL035	P8
BL050	P6
BL052	N5
BP020	R2
BP025	J2
BP035	K3
BP110	P4
BP120	J4
BP130	P6
BP190	A2
BR001	E0
BR002	F1
BR003	F4
BR004	H2
BR005	H1
BR006	G2
BR007	B1
BR008	F2
BR009	B2
BR010	D4
BR011	B2
BR012	G5
BV001	J5
BV002	C8
BV005	J6
BV006	J5
BV010	G6
BV011	G7
BV021	H4
BX001	H11
BX002	E11
BX500	J11

CA001	B3
CA002	B4
CA003	A3
CA004	A3
CA005*	B3
CA006*	B3
CA007*	C 3
CA008*	C 4
CA009	A 5
CA010	C 4
CA011	A 7
CA012	A 7
CA013	A 6
CA014	A 6
CA015	B 7
CA016*	B7
CA018	A9
CA019	A9
CA020	B10
CA021	A10
CA022	A11
CA023	B11
CA024	A8
CA025	A9
CA027*	C8
CA028	B4
CF002*	K10
CF011	L10
CF015	J9
CF021	L10
CF027	L11
CF028	K10
CF029	J10
CF031	K11
CH001*	C10
CH002*	C10
CH003*	C10
CH004*	C9
CH005*	C9
CH006*	C9
CH007	D9
CH008	D9
CH009*	B9
CH010	D10
CI001*	C8
CI002*	B7
CI003*	C7
CI004*	C7
CI005*	C7
CI006*	C8
CI007*	B6
CI008*	C5
CI009*	C6
CI010*	C7
CI011*	C7
CI012*	C6
CI020*	C5
CI021*	C6
CI022*	F6
CI025*	D7
CI030*	D8

CI031	D8
CI032*	E5
CI033*	F4
CI040*	C6
CI041*	C6
CI045*	D5
CI046*	E6
CI048*	D6
CI049*	D6
CI050*	D6
CI051*	D6
CI052*	D6
CI053*	E6
CI054	D7
CI055*	D7
CI056*	D7
CI060	D6
CI061	D5
CI062	D5
CI063*	D6
CI064 *	E5
CI065*	E5
CI066*	E5
CI070*	F6
CI071*	C5
CI072*	B6
CI073*	E5
CI074*	F5
CI077*	E6
CI078*	E4
CI090*	F7
CL001	Q5
CL002*	K5
CL003*	Q6
CL004	Q6
CL005	R6
CL006*	Q5
CL008*	R5
CL023	L6
CL027*	J6
CL028	P11
CL029	Q10
CL029	Q10
CL030	Q8
CL031	Q8
CL032	R10
CL033	M10
CL034	M11
CL036	N10
CL037	P9
CL038	Q7
CL039	R7
CL041	K8
CL042	J8
CL043	K8
CL044	K9
CL045	H8
CL046	P6
CL052	M6
CL057*	L7
CL061*	M6
CL062*	L7
CL063*	M7
CL066*	N6
CL067	P7
CL073	L6
CL084	P6
CL146	P6
ICL148	Q6
CL211*	L8
CP017	Q1
CP018	N1
CP019	Q 2
CP020	Q 1
CP020	Q1
CP021	P0
CP022	N1
CP023	P0
CP040	M0
CP041*	N0
CP042*	N0
CP050	M1
CP051	M2
CP052	L2
CP053	L2
CP054	L1
CP055*	L1
CP056	L1
CP060*	K1
CP061	J1
CP062	J0
CP063*	J0
CP064	K0
CP065*	K0
CP066*	K0
CP067*	L0
CP068*	K0
CP069*	L0
CP100	P3
CP100	Q3
CP102*	M3
CP110	P5
CP111	Q4
CP112	Q4
CP120	L5

CP121	K4
CP126	L5
ICP130	P4
CP131	P5
CP135	N4
CP137	M4
CP138	L5
CP140	J3
CP141	H0
CP142	H1
CP143	H 3
CP144	H1
CP146	H2
CP150*	H2
CP151*	N4
CP152*	N4
CP168*	G1
CP170*	K6
CP171	H4
CP176*	H4
CP179	H4
CR001	B0
CR002*	A0
CR003*	C2
CR004*	C2
CR005*	B0
CR006*	B0
CR007*	D0
CR008*	D1
CR009*	D2
CR010*	D2
CR011*	D2
CR015*	D1
CR016*	E1
CR017*	E1
CR018*	F2
CR019*	F2
CR020*	E4
CR021*	D4
CR022*	D3
CR023*	E4
CR029*	F0
CR030*	F0
CR032*	F0
CR033*	E0
CR034*	E0
CR035*	E0
CR036*	C3
CR037*	C3
CR038*	E3
CR039*	B2
CR041*	E2
CR042*	F1
CR043*	F1
CR049*	F2
CR050*	F2
CR060*	B2
CR062*	D4
CR063*	C4
CR065*	G2
CR066*	G2
CR067*	B2
CR072*	B3
CR075*	B1
CR085*	F2
CR086*	C4
CR087*	D2
CR090*	F2
CR091*	E2
CR092*	C2
CR093*	G0
CR098*	F0
CR100*	B1
CR101*	E0
CR104*	E1
CR110*	F4
CV002	H7
CV003	J6
CV006	J7
CV007*	J6
CV008*	H 6
CV009*	H7
CV011*	J6
CV012*	J6
CV021*	G6
CV022*	G7
CV023*	G7
CV025*	G7
CV026*	F7
CV027*	F7
CV028*	F7
CV031*	G5
CV032*	G5
CV033*	G4
CV036*	G6
CV037*	G6
CV038*	G6
CV041*	G7
CV042*	G6
CV043	G7
CV044*	G8
CV046*	H6
CV047*	H6
CV048*	H7
CV051	H6

CV052*	G6
CV062*	H5
CV063*	H5
CV072*	H5
CV073*	H5
CV082*	H5
CV083*	H5
CV092*	H6
CV102	J5
CV103	J6
CV201*	H6
CV206	H8
CV207	H7
CV213*	J6
CV216*	J6
CV222*	K6
CV231*	J6
CV232*	J6
CV234*	K6
CV241*	J6
CV242*	K6
CV243*	K5
CV246*	H6
CX001*	E9
CX002	F9
CX120	H10
CX130*	J10
CX140*	J10
CX150*	G10
CX220	E10
CX250*	E10
CX280*	B8
CX282*	D10
CX301	D10
CX350*	E10
CX722*	D11
CX723*	D11
CX724*	C11
CX726*	D11
CX900	E10
CX901*	F9
CX902	D9
CX910*	H10
CX920*	D10
CX950*	F9
CX965*	E9

DA001*	A1
DA002*	A11
DF001	K10
DF002*	K10
DF007*	K10
DF011	L11
DF028*	K10
DF031	K10
DF033	K11
DH001*	C9
DI001*	C5
DI002*	C 7
DI040*	C6
DI041*	C6
DI051*	E5
DI070*	E5
DI071*	F5
DL001	Q6
DL003*	R7
DL004*	R7
DL023*	L6
DL030*	R9
DL030	R9
DL032*	R10
DL032	R10
DL032	R11
DL034	N9
DL036	N9
DL041*	J8
DL041	J8
DL043	K8
DL046	P6
DL050	M6
DL051	L6
IDL052	L6
DL057*	L7
DL060*	M6
DL061*	Q6
DL062*	P6
DL066*	P7
DL070*	M7
DL071	K9
DL072*	K9
DL092	L6
DL147*	Q7
DL148*	Q7
DL157*	L8
DP018	P1
DP019	Q2
DP022	N1
DP027	K1
DP028	K2
DP034*	K 2
DP035	K2
DP040	N0
DP041	N0

DP043	M0
DP044	N0
DP045	N1
DP050	M1
DP051*	M2
DP052	K1
DP053	L2
DP054	L1
DP060*	K1
DP061*	J0
DP066	K0
DP108	L 5
DP108*	M5
DP108	M4
DP109*	M4
DP109	M4
DP110	Q4
DP112	Q 4
DP113	R5
DP126*	K5
DP130	N4
DP131*	N5
DP132*	P5
DP133	N5
DP134	J8
DP140*	L4
DP140	L4
DP151*	N4
DP152*	N5
DP160*	K3
DP172*	H4
DP173*	H4
DP175*	H3
DP178*	H3
DP179*	J4
DP190*	A1
DR090*	G0
DR091	E2
DR104	E1
DV011*	G8
DV012*	G8
DV025*	G7
DV026*	G8
DV027*	G8
DV028*	G8
DV101*	J5
DV104 *	K5
DV108*	K6
DV221*	K7
DX001*	E8
DX120	G10
DX151*	F10
DX220*	E9
DX251*	E9
DX301*	D10
DX351*	E10

FI001	C7
FI002	C6
FI010	C6
FI015	C7
FI020	C6
FI030	E6
FI040	E6

IA001	A7
IA001	A4
IA001	A8
IA002	A2
IF001	L11
II050	E6
IIL062*	M6
IP050	M1
IP060	K0
IP130	N5
IP140	J2
IP140	J1
IR001*	C2
IR001	C2
IR002*	C0
IR002	C0
IR003	B0
IR004*	F3
IR004	F3
IV001	H6
IX001*	E8
IX001	E8
IX900	E9

JA002	A1
JA003	A2
JA004	B4
JA005	B4
JA006	B4
JA007	B4
JA008	A5
JA009	A5

JA010	A5
JA011	A5
JA012	A5
JA013	A 6
JA014	B7
JA015	B7
JA016	B8
JA017	A7
JA018*	A 8
JA019	B7
IJA020	B10
JA021	A10
JA022	B11
JA023	B9
JA051*	A10
JA052*	B10
JA053*	B9
JA054*	B9
JA055*	A4
JA056*	A4
JA100	K4
JF001	K10
JF003	L10
JF004*	J9
JF005*	L11
JF010*	K10
JF011*	K10
JH005*	C8
JH006*	C8
JH007	B8
JH009	C11
JH903*	C 10
JI001	C7
JI004*	D9
JI005*	E7
JI006*	E7
JI008*	C6
JI009*	E6
JI010*	D5
JI012*	C5
JI013*	D5
JI014*	F5
JI015*	D7
JI016	B8
JI020	B8
JI021	D5
JI022	F6
JI023	F6
JI024	F 4
JI901	C5
JI902*	D5
JI903*	D6
JI906*	D8
JI910*	D5
JI915*	E7
JI916*	E7
JI928*	D8
JI930*	D7
JI931*	D8
JL001	M8
JL005*	Q 5
JL006	M7
JL007	M6
JL008	L6
JL009 *	M7
JL010*	M8
JL011	M7
JL012	N6
JL016	K9
JL017	K9
JL018	H9
JL019	H9
JL020 *	K 7
JL021	K7
JL032	N10
JL033	Q8
JL034	N7
JL035	N8
JL036	Q11
JL037	P11
JL083	N 6
JL084	N6
JL932	M10
JL933	N10
JL934	M10
JL936	N10
JL937	P10
JL943*	K8
JL984	N6
JL985	P6
JP136	G0
JP170	K5
JP201*	L2
JP204*	P5
JP205	H1
JP208*	J5
JP209*	P0
JP211*	K2
JP300	K1
JP301	L2
JP302	P1
JP303	L4
JP304	L3
JP305	P5
JP306	M1

JP307	P4
JP309	J4
JP310	H3
JP311	J3
JP312	J3
JP313	J3
JP314	H1
JP315	H2
JP316	H1
JP317	J1
JP318	N2
JP319	M1
JP321	H3
JP322	G0
JP324	N5
JP326	L1
JP327	L1
JP328	R2
JP902*	K2
JP903*	L3
JP910	J2
JP911	J2
JP913	L5
JP914	P4
JP915	P4
JP916	P4
JP917*	P4
JR007*	C0
JR008*	B1
JR009*	B3
JR017*	C1
JR018*	C1
JR019*	D 2
JR020*	D1
JR021*	D1
JR022*	D1
JR023*	D0
JR024*	E3
JR026*	D1
JR027*	F2
JR028*	E2
JR029*	G0
JR030*	E2
JR031*	E3
JR032*	F2
JR033	F0
JR035*	G3
JR036*	G3
JR038*	F4
JR040*	G4
JR045*	C3
JR100	A0
JR102	C3
JR103	B3
JR104	C1
JR105	D1
JR106	D1
JR107	C3
JR108	C3
JR109	C3
JR110	D3
JR111	D3
JR112	D3
JR114	D3
JR116	D4
JR117	D4
JR118	D4
JR119	E4
JR120	E4
JR121	E4
JR122	E4
JR123	E4
JR125	E3
JR126	E3
JR127	E4
JR128	F3
JR129	E2
JR131	E1
JR132	E1
JR133	E1
JR134	F1
JR137	G0
JR138	G0
JR139	G1
JR140	G1
JR141	G1
JR142	F2
JR146	F3
JR147	F3
JR148	F4
JR149	F4
JR150	G4
JR151	G4
JR152	G3
JR153	G3
JR154	G3
JR155	G3
JR156	G4
JR160	G5
JR161	G5
JR162	G2
JR163	G2
JR165	G1
JR166	B6
JR167	B6

JR168	B7
JR171	C1
JR172	F4
JR173	E1
JR174	D0
JR175	F3
JR901*	B0
JR902*	D0
JR903*	B1
JR904*	B1
JR905*	B0
JR906*	F3
JR907	F2
JR908*	B0
JV001	H7
JV002	K6
JV003	G8
JV004	G5
JV005	F6
JV006*	G7
JV007*	H6
IJV009	K5
JV010*	L5
JV011	K6
JV012	K6
JV013*	H6
JV014*	H6
JV015	G5
JV016	J10
JV017*	J5
JV021	K6
JV022	K6
JV023	J5
JV031*	G4
JV032*	G4
JV033	G4
JV034	G4
JV901*	G6
JV902*	G6
JX002	E8
JX003*	E8
JX004*	E8
JX005	G8
JX006	F8
JX007	F8
JX008	F9
JX009	G8
JX010	E9
JX011	G9
JX012	G9
JX013	F8
JX014	G10
JX015	G9
JX016	G9
JX017	G9
JX019	G10
JX020	H11
JX021	E11
JX022	E10
JX023*	E9
JX025*	D11
JX050*	E10
JX051*	E11
JX055	E8
JX056	F8
JX920	G9
JX922	F8
JX923	F10

LH004	C9
LI020	C5
LI051	E5
LI053	E7
LI070	E5
LI090	F7
LL001	R7
LL006	M5
LL008	M8
LL029	P10
LL030	Q9
LL031	R8
LL032	R11
LL033	N11
LL034	M10
LL037	P9
LL043	K8
LL045	H9
LL046	P7
LL047	P7
LL084	N6
LP019	Q2
LP020	N3
LP021	P2
LP040	L0
LP042	N0
LP070	L3
LP112	Q5
LR002*	D0
LR003	E0
LR004	D3
LR005	B2
LR011*	D3

PI030	E7
PI035	D8
PI050	D7

QI053	D7
QI070	E5
QR001	D3

RA001*	A 1
RA002*	A0
RA003*	B3
RA004*	B4
RA005*	A 3
RA006*	A3
RA007*	A 3
RA008*	A 4
RA009*	B4
RA010*	B4
RA011*	B3
RA012 *	B4
RA013	A5
RA014	C3
RA016*	A0
RA017*	A1
RA018*	A1
RA019	E3
RA020*	A10
RA021*	A10
RA022*	A10
RA023*	A 10
RA024*	A9
RA025*	A9
RA026*	A9
RA027*	A 8
RA028*	A9
RA029*	A0
RA030	A7
RA031*	A2
RA032*	A 10
RA033*	A10
RA034*	B4
RA035*	A1
RA040*	A 9
RF002*	K10
RF003	K10
RF007*	K10
RF011	L10
RF012	K9
RF013	K9
RF015	K9
RF020	L10
RF023*	K9
RF024*	J9
RF025*	K9
RF026	J8
RF036*	K9
RH001*	C10
RH002*	C9
RH003*	C9
RH004*	C9
RH007	D9
RH008	H9
RH010*	C10
RH011*	C10
RI001*	C7
RI002*	E4
RI003*	C5
RI004*	B7
RI005*	C5
RI006*	C5
RI007*	D7
RI008*	C7
RI009*	C8
RI012*	C6
RI019*	C5
RI020*	C5
RI021*	D7
RI022*	C5
RI023*	C6
RI024*	C6
RI025*	C6
RI026*	C7
RI027*	D7
RI028*	D8
RI029*	E8
RI030*	E7
RI031*	E7
RI032*	F6
RI033*	D8
RI034*	C8
RI035*	D8
RI036	D8
RI037*	E7
RI038*	E8
RI039*	E8
RI040*	C5
RI041*	C6

RI042*	C5
RI043*	C6
RI044*	C6
RI045*	D8
RI049*	E6
RI050*	E6
RI051*	E6
RI052*	F6
RI053*	E 7
RI054*	C6
RI055*	E7
RI056*	E5
RI058*	D5
RI059*	E5
RI061*	E5
RI062*	D5
RI065*	D5
RI066*	D6
RI070*	F5
RI071*	F5
RI072*	E5
RI073*	E5
RI074*	E5
RI075*	F5
RI076*	D5
RI077*	E6
RI078*	F 4
RI079*	E4
RI082*	E5
RI083*	D5
RI084*	D4
RI090*	E8
RI091*	E7
RI092*	F7
RI093*	F7
RI094*	E8
RI095*	D8
RL001*	J5
RL002*	J5
RL003 *	J5
RL004	Q6
RL004	Q6
RL013	Q6
RL014	R7
RL015	R6
RL016*	R7
RL017*	R7
RL018*	R7
RL020*	J7
RL021*	K6
RL023	K6
RL024*	H8
RL025	K6
RL026*	P11
RL027*	P11
RL028	K6
RL029	P11
RL030	Q 10
RL030	Q10
RL037	P9
RL040	K8
RL043	K8
RL044*	L6
RL045*	L11
RL046*	N7
RL047	Q 6
RL048*	P7
RL050*	L6
RL051*	K7
RL052	M 6
RL053*	M6
RL054*	M6
RL055*	L7
RL056*	L7
RL057*	M 7
RL058*	L7
RL059*	Q6
RL063*	M 7
RL064*	P6
RL065*	P6
RL066*	Q7
RL067*	Q9
RL068*	Q 9
RL069*	Q9
RL070*	M 7
RL071*	L9
RL072*	K 9
RL073*	N6
RL080*	J6
RL081	K5
RL082	L6
RL084	P6
RL092*	L7
RL124*	N9
RL125*	N9
RL126*	M9
RL127*	M 9
RL129	P10
RL134*	N9
RL135*	N9
RL136*	M 9
RL137*	M9
RL146*	Q7
RL147*	Q7
RL149*	Q7

RL155*	L7
RL160*	L7
RL171*	L9
RL211*	L8
RL214*	K7
RP020	P0
RP022	N1
RP025	K2
RP025	K2
RP026*	K2
RP027*	K1
RP028	L1
RP029*	L1
RP030	L1
RP031	L1
RP032	M1
RP035	K2
RP040	L0
RP041*	M0
RP042*	M0
RP050	M2
RP051*	L1
RP052*	L0
RP053	L1
RP054	K1
RP054	K1
RP055	K3
RP056*	K0
RP059*	J1
RP060*	K1
RP061*	K1
RP062	J0
RP063*	K0
RP064*	J0
RP065*	K0
RP066	L1
RP067*	M0
RP068*	L1
RP069*	L0
RP070*	L2
RP100	R3
RP102*	M3
RP112	R4
RP112	R5
RP120*	M5
RP121*	L5
RP122*	M5
RP123*	K4
RP124*	K4
RP125*	L4
RP126*	K5
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RP130	L5
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RP140*	H2
RP141*	H2
RP142*	H2
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RP149*	J1
RP150*	P4
RP151*	P4
RP152*	N5
RP156	N4
RP157*	N4
RP158*	P4
RP159*	N4
RP160*	J4
RP161*	L4
RP162*	K3
RP163*	L3
RP164*	H1
RP165*	H1
RP166*	H0
RP167*	H0
RP168*	G0
RP170*	K6
RP171*	H4
RP172*	J4
RP173	K6
RP175*	H4
RP176*	H4
RP177*	H3
RP179*	J4
RP190*	A1
RP191*	A1
RP192*	A2
RP193*	A1
RP194*	B2
RR010*	D1
RR011*	C2
RR012*	C2
RR013*	F0
RR014*	G0
RR015	D1
RR016	D2
RR017	D1
RR018	F2

RR019	F 2
RR021	D4
RR025*	E0
RR026 *	E0
RR027*	E1
RR028*	D2
RR029*	F0
RR030 *	F0
RR031*	F0
RR032	E3
RR033	E3
RR034	E3
RR035	E3
RR036*	F0
RR037*	E0
RR038*	E0
RR039*	E0
RR040*	E0
RR041*	E1
RR042 *	F1
RR043 *	F0
RR044 *	C2
RR045 *	C2
RR048*	F2
RR049*	F2
RR050*	B2
RR051*	B1
RR052*	B2
RR053*	C2
RR055*	C2
RR056*	C2
RR057*	E3
RR060*	B2
RR061*	B1
RR062*	B3
RR063*	B2
RR065*	C2
RR066*	C2
RR067*	B2
RR070*	B2
RR071*	B3
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RR076*	B1
RR084*	G1
RR085	G2
RR086	C4
RR087	E2
RR088	C4
RR089	E2
RR091*	G0
RR093*	F1
RR097*	F3
RR098*	G1
RR099*	G1
RR100*	C2
RR103*	G4
RR104*	E1
RR105*	G1
RR106*	G0
RR107*	G1
RR171*	B2
RR910*	F4
RR924*	E2
RV001*	H8
RV002	H7
RV003*	J7
RV011*	H9
RV012*	H8
RV021*	G5
RV022*	J5
RV038*	G5
RV041*	G7
RV043*	G7
RV051*	G5
RV052*	G6
RV053*	H6
RV061*	H6
RV062*	H6
RV063*	H5
RV064	H5
RV066*	H5
RV071*	J6
RV072*	H6
RV073*	H5
RV074	H5
RV076*	H5
RV081*	J6
RV082 *	H6
RV083*	H5
RV084	H5
RV086*	H5
RV091*	H6
RV092*	H6
RV101*	L6
RV107*	J5
RV108*	K6
RV109*	K5
RV110*	L6
RV112*	K6
RV201*	H7
RV202*	F6
RV203*	F7
RV206*	H7
RV213*	J6

RV216*	J 6
RV221*	K7
RV222*	K6
RV223*	K7
RV231	K7
RV232	J7
RV233	J7
RV241*	J5
RV242*	J5
RX107*	H11
RX111*	H11
RX115*	H11
RX116*	H10
RX120*	H10
RX121*	H10
RX122	G10
RX130*	J11
RX131*	F8
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RX301*	E11
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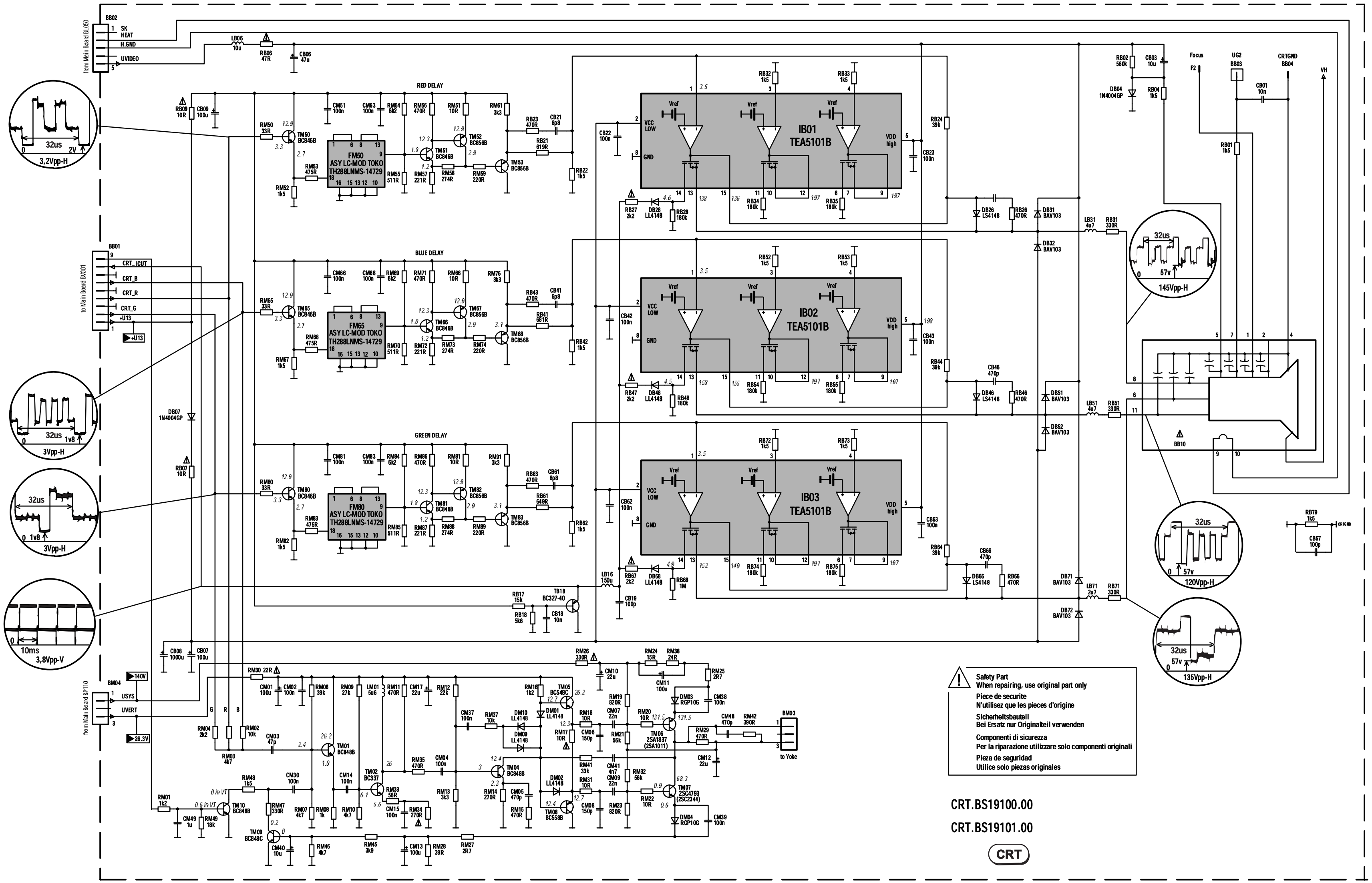
RX350*	E10
RX351*	E10
RX900	F10
RX910	G10
RX911*	H10
RX912*	H10
RX920*	D9
RX921*	D10
RX922*	D10
RX950*	F9
RX951*	G8
RX955*	E9
RX956*	E9
RX960*	F9
RX961*	G8
RX965*	E9
RX966*	E9
RX991	H9
RX992	D9

TI010*	C5
TI020*	C6
TI030*	D8
TI031*	D8
TI032*	D8
TI033*	F6
TI034*	E8
TI040*	D5
TI045*	D5
TI050*	C6
TI070*	E4
TI090*	E7
TI091*	E7
TI092*	D8
TI093*	D8
TL001*	K5
TL004*	Q6
TL005*	R6
TL028	Q11
TL030	R8
TL030	R9
TL062*	K7
TL063*	M6
TP025*	K2
TP026*	K2
TP027 *	J0
TP060	N0
TP129*	L5
TP145*	H2
TP146	J2
TP150*	N5
TP152*	N4
TP161*	K3
TP162*	K3
TP166*	H0
TP167*	G0
TP170*	K6
TP175*	H4
TP190*	A1
TR002*	F0
TR048*	F2
TR091*	G0
TR095*	F2
TR102*	G4
TR105*	G1
TR106*	G2
TV002	H7

TV063*	H5
TV073*	H5
TV083*	H5
TV108	K6
TX910	H10
TX920	D10
TX950	F9
TX955*	E9
TX960*	F9
TX965*	E9

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19100 - CRTBS19101


BB02
from Main Board BL050
SK
HEAT
H.GND
UVIDEO
LB06 10u
RB06 47R
CB06 47u
RB09 10R
CB09 100u
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
TM50 BC846B
TM51 BC846B
TM52 BC856B
TM53 BC856B
TM65 BC846B
TM66 BC846B
TM67 BC856B
TM68 BC856B
TM80 BC846B
TM81 BC846B
TM82 BC856B
TM83 BC856B
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
Vref
VCC LOW
VDD high
GND
BB01
to Main Board BV001
CRT_ ICUT
CRT_B
CRT_R
CRT_G
+U13
DB07 1N4004GP
RB07 10R
TB18 BC327-40
CB08 1000u
CB07 100u
BM04
from Main Board BP110
140V
USYS
UVERT
26.3V
G
R
B
TM01 BC848B
TM02 BC337
TM04 BC848B
TM05 BC548C
TM06 2SA1837 (2SA1011)
TM07 2SC4793 (2SC2344)
TM08 BC558B
TM09 BC848C
TM10 BC848B
DM03 RGP10G
DM04 RGP10G
BM03
to Yoke
Focus
F2
UG2
BB03
CRTGND
BB04
VH
DB04 1N4004GP
RB02 560k
CB03 10u
RB04 1k5
CB01 10n
RB01 1k5
BB10
LB31 4u7
RB31 330R
LB51 4u7
RB51 330R
LB71 2u7
RB71 330R
DB31 BAV103
DB32 BAV103
DB51 BAV103
DB52 BAV103
DB71 BAV103
DB72 BAV103
RB79 1k5
CB57 100p
32us
2V
3,2Vpp-H
32us
1v8
3Vpp-H
32us
1v8
3Vpp-H
10ms
3,8Vpp-V
32us
57v
145Vpp-H
32us
57v
120Vpp-H
32us
57v
135Vpp-H
CRT

Safety Part
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

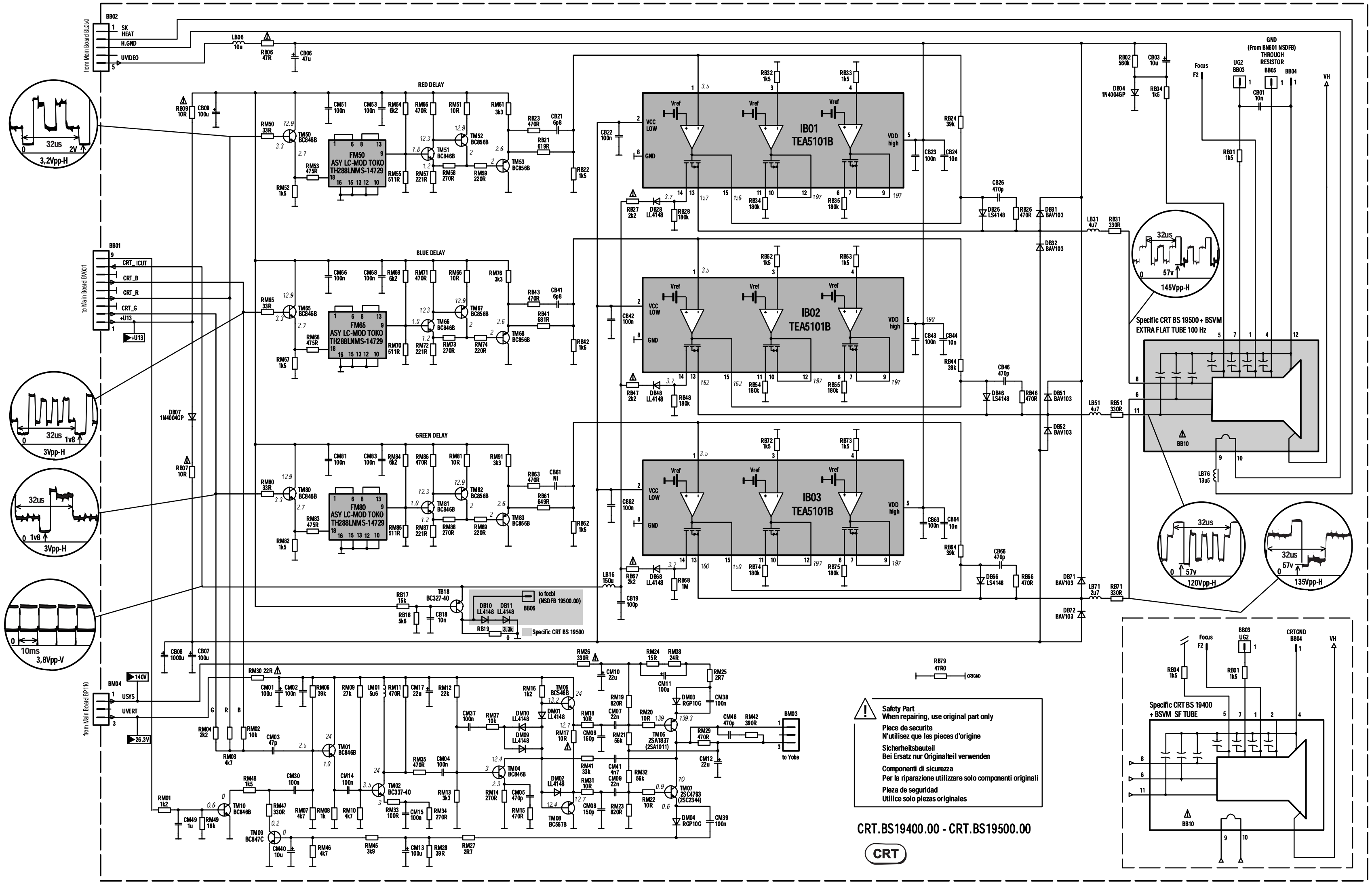
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

Pieza de seguridad
Utilice solo piezas originales

CRT.BS19100.00

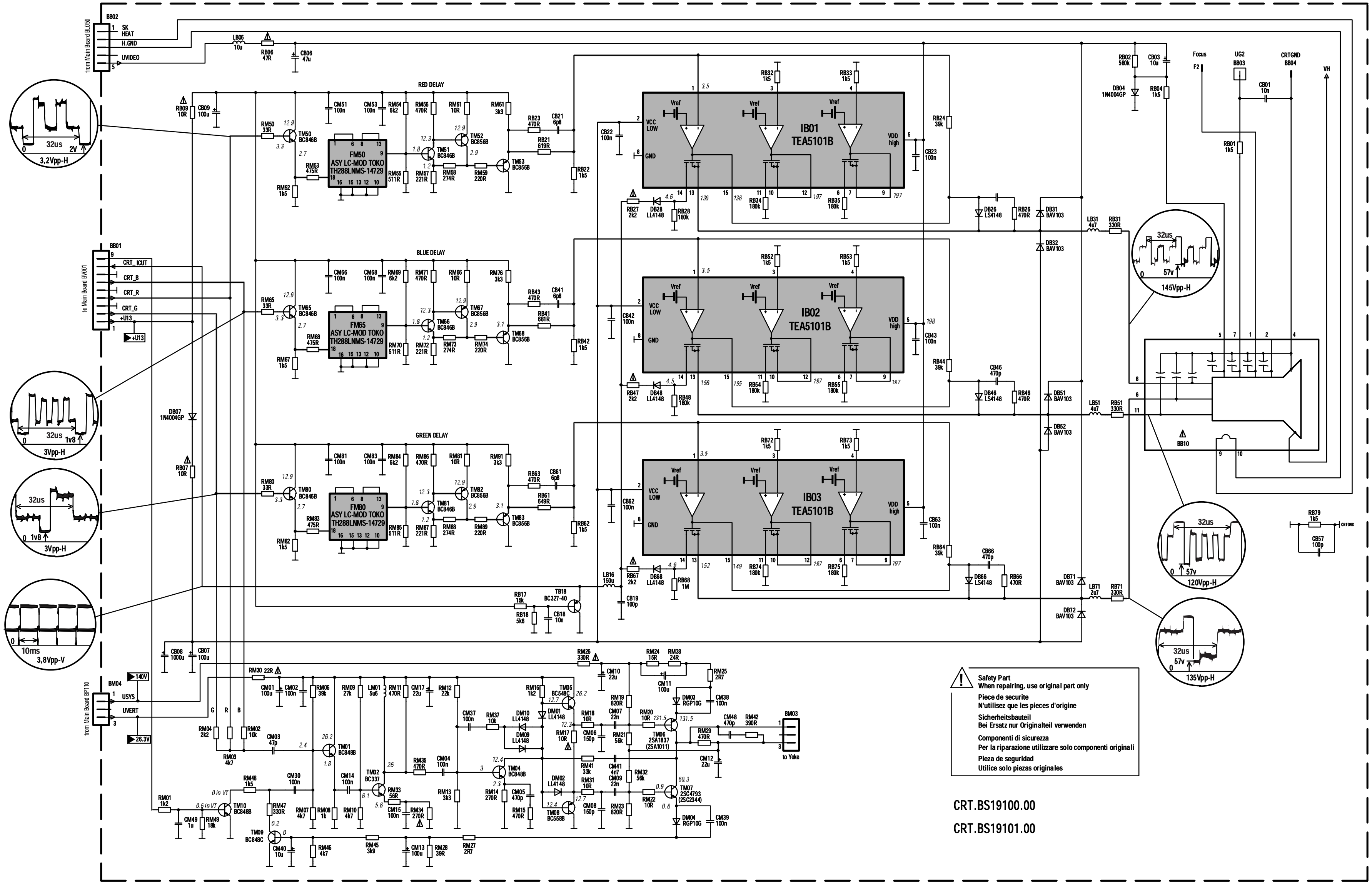
CRT.BS19101.00

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19400 - CRTBS19500


BB02
SK HEAT
H.GND
UVIDEO
from Main Board BU060
to Main Board BV061
from Main Board BP110
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
BB04
USYS
UVERT
140V
26.3V
32us
2V
3,2Vpp-H
1v8
3Vpp-H
10ms
3,8Vpp-V
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
TM50 BC846B
TM51 BC846B
TM52 BC856B
TM53 BC856B
TM65 BC846B
TM66 BC846B
TM67 BC856B
TM68 BC856B
TM80 BC846B
TM81 BC846B
TM82 BC856B
TM83 BC856B
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
Vref
VCC LOW
GND
VDD high
TB18 BC327-40
to focbl (NSDFB 19500.00)
BB06
Specific CRT BS 19500
LB31 4u7
LB51 4u7
LB71 2u7
DB31 BAV103
DB32 BAV103
DB51 BAV103
DB52 BAV103
DB71 BAV103
DB72 BAV103
57v
145Vpp-H
120Vpp-H
135Vpp-H
Specific CRT BS 19500 + BSVM EXTRA FLAT TUBE 100 Hz
BB10
GND (From BN601 NSDFB) THROUGH RESISTOR
Focus
F2
UG2
BB03
BB05
BB04
VH
LB76 13uS
TM01 BC846B
TM02 BC337-40
TM04 BC846B
TM05 BC546B
TM06 2SA1837 (2SA1011)
TM07 2SC4793 (2SC2344)
TM08 BC557B
TM09 BC847C
TM10 BC846B
DM03 RGP10G
DM04 RGP10G
BM03
to Yoke
CRTGND
Specific CRT BS 19400 + BSVM SF TUBE
CRT.BS19400.00 - CRT.BS19500.00
CRT

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19100 - CRTBS19101


BB02
from Main Board BL050
SK
HEAT
H.GND
UVIDEO
LB06 10u
RB06 47R
CB06 47u
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
TM50 BC846B
TM51 BC846B
TM52 BC856B
TM53 BC856B
TM65 BC846B
TM66 BC846B
TM67 BC856B
TM68 BC856B
TM80 BC846B
TM81 BC846B
TM82 BC856B
TM83 BC856B
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
Vref
VCC LOW
VDD high
GND
BB01
to Main Board BV001
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
DB07 1N4004GP
RB07 10R
RB09 10R
CB09 100u
32us
2V
3,2Vpp-H
1v8
3Vpp-H
10ms
3,8Vpp-V
57v
145Vpp-H
120Vpp-H
135Vpp-H
Focus
F2
UG2
BB03
CRTGND
BB04
VH
RB02 560k
CB03 10u
DB04 1N4004GP
RB04 1k5
CB01 10n
RB01 1k5
DB26 LS4148
DB31 BAV103
DB32 BAV103
DB51 BAV103
DB52 BAV103
DB71 BAV103
DB72 BAV103
LB31 4u7
RB31 330R
LB51 4u7
RB51 330R
LB71 2u7
RB71 330R
BB10
RB79 1k5
CB57 100p
TB18 BC327-40
RB17 15k
RB18 5k6
CB18 10n
LB16 150u
CB19 100p
BM04
from Main Board BP110
USYS
UVERT
140V
26.3V
CB08 1000u
CB07 100u
TM01 BC848B
TM02 BC337
TM04 BC848B
TM05 BC548C
TM06 2SA1837 (2SA1011)
TM07 2SC4793 (2SC2344)
TM08 BC558B
TM09 BC848C
TM10 BC848B
DM01 LL4148
DM02 LL4148
DM03 RGP10G
DM04 RGP10G
DM09 LL4148
DM10 LL4148
BM03
to Yoke
G
R
B

![!] **Safety Part**
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

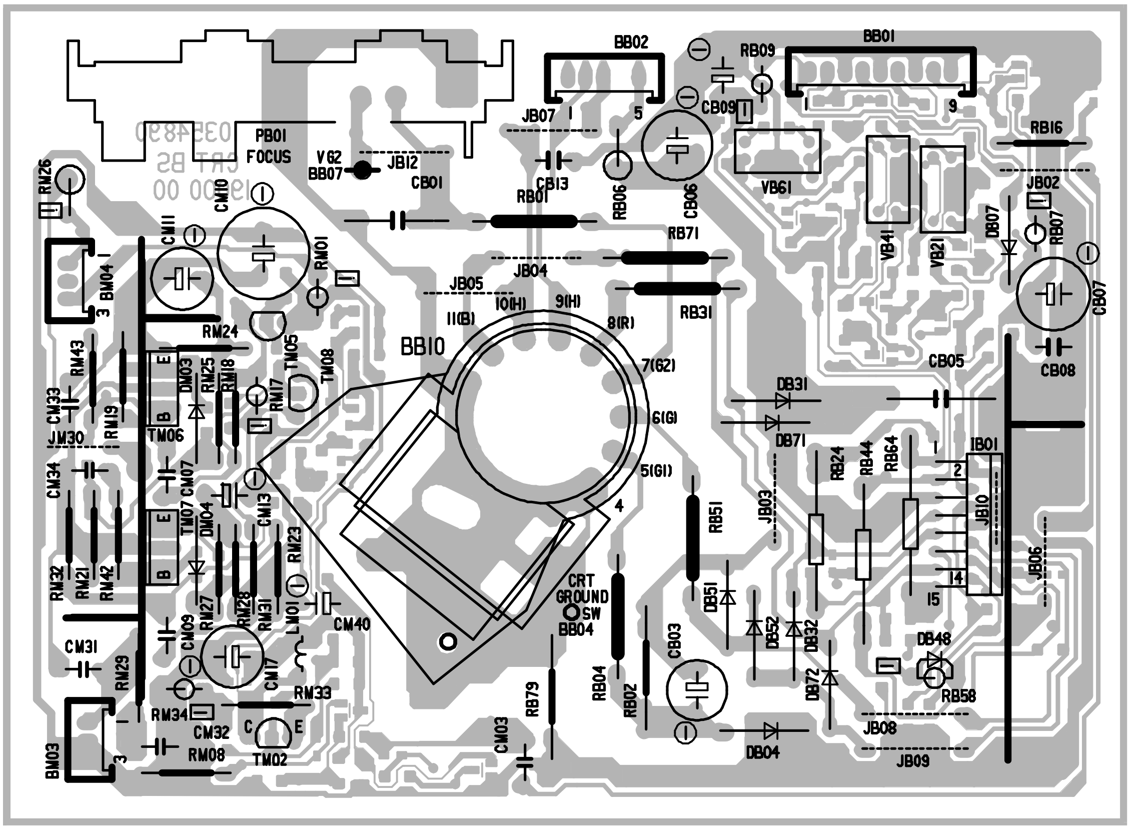
Pieza de seguridad
Utilice solo piezas originales

CRT.BS19100.00

CRT.BS19101.00

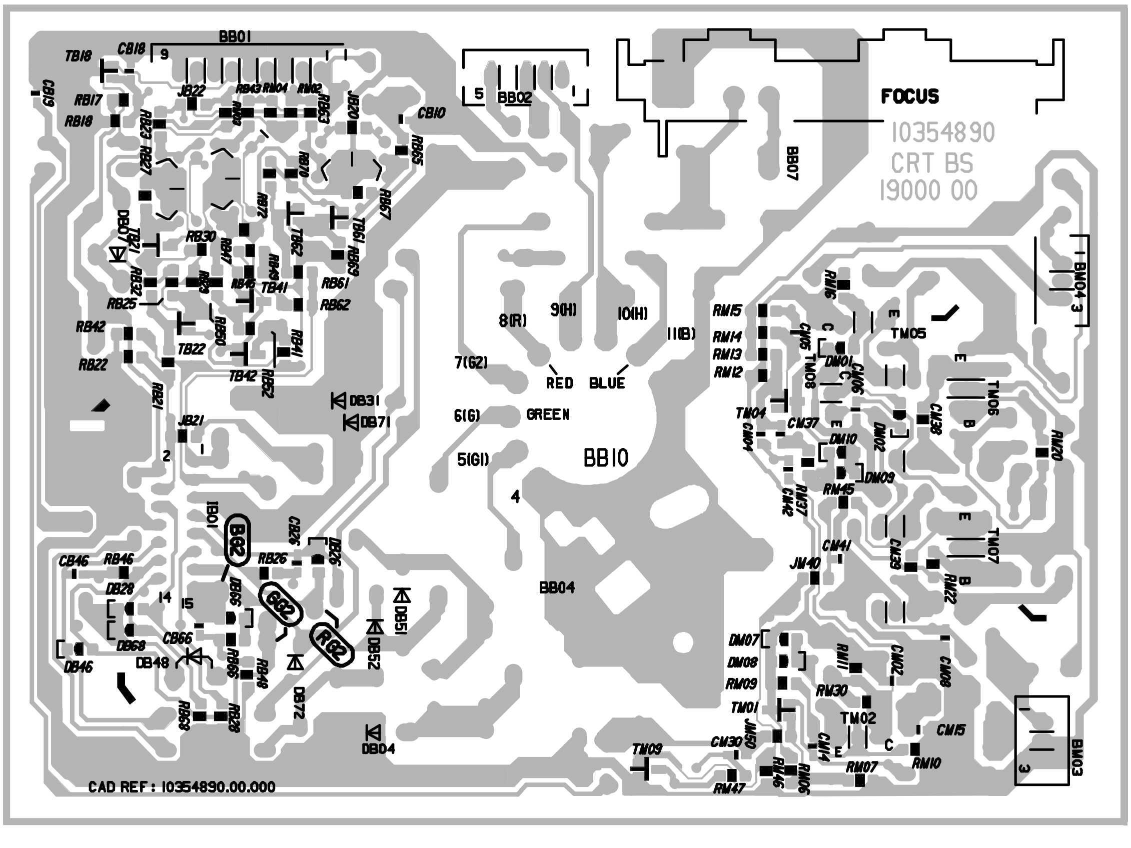
CRT BS19000

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE -
LATO COMPONENTI - LADO COMPONENTES



BB02
BB01
RB09
JB07
5
9
CB09
PB01
FOCUS
V62
BB07
JB12
CB01
CB13
RB01
RB06
CB06
VB61
RB16
JB02
DB07
RB07
VB41
VB21
CB07
RM26
CM11
CM10
RM01
BM04
3
RB71
JB05
JB04
11(B)
10(H)
9(H)
8(R)
RB31
RM24
TM05
TM08
RM43
DM03
RM25
RM18
RM17
BB10
7(G2)
CB05
CB08
CM33
RM19
JM30
TM06
DB31
6(G)
DB71
CM34
CM07
TM07
DM04
CM13
RM23
5(G1)
4
RB51
JB03
RB24
RB44
RB64
IB01
JB10
JB06
RM32
RM21
RM42
RM27
RM28
RM31
LM01
CM40
CRT
GROUND
SW
BB04
DB51
DB52
DB32
15
CM31
CM09
CM17
RM29
CB03
DB48
DB72
RB58
RM33
RB79
RB04
RB02
BM03
RM34
CM32
TM02
CM03
JB08
RM08
DB04
JB09

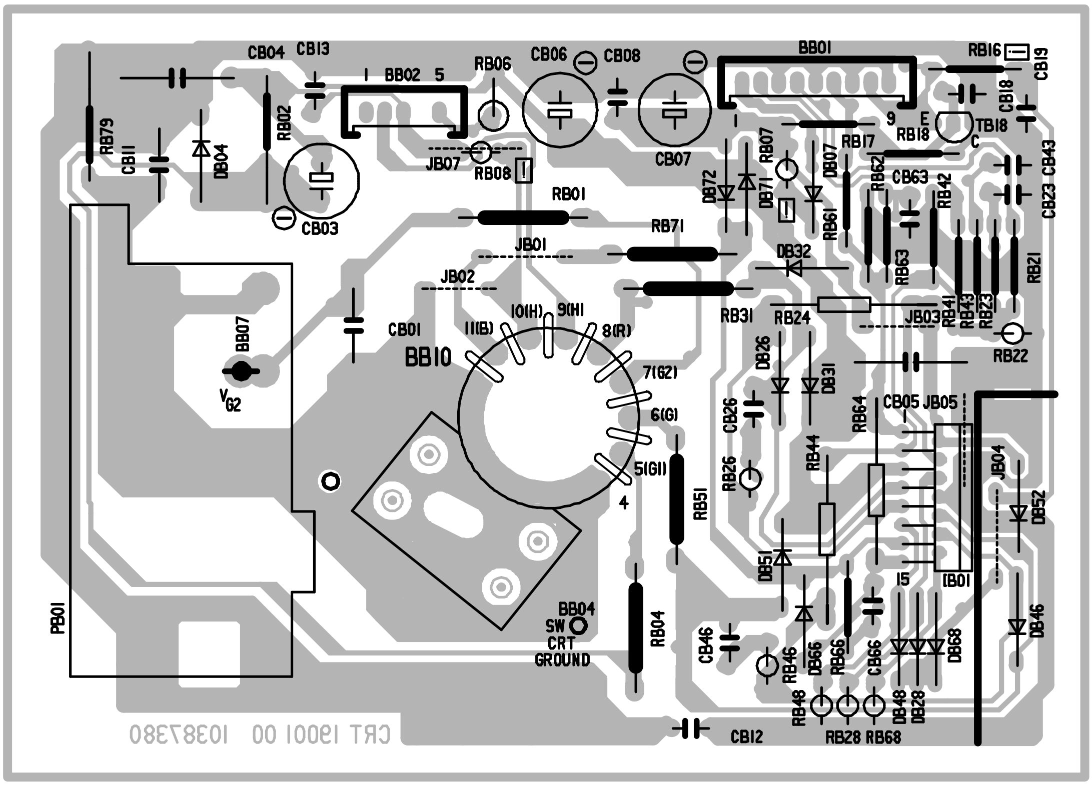
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



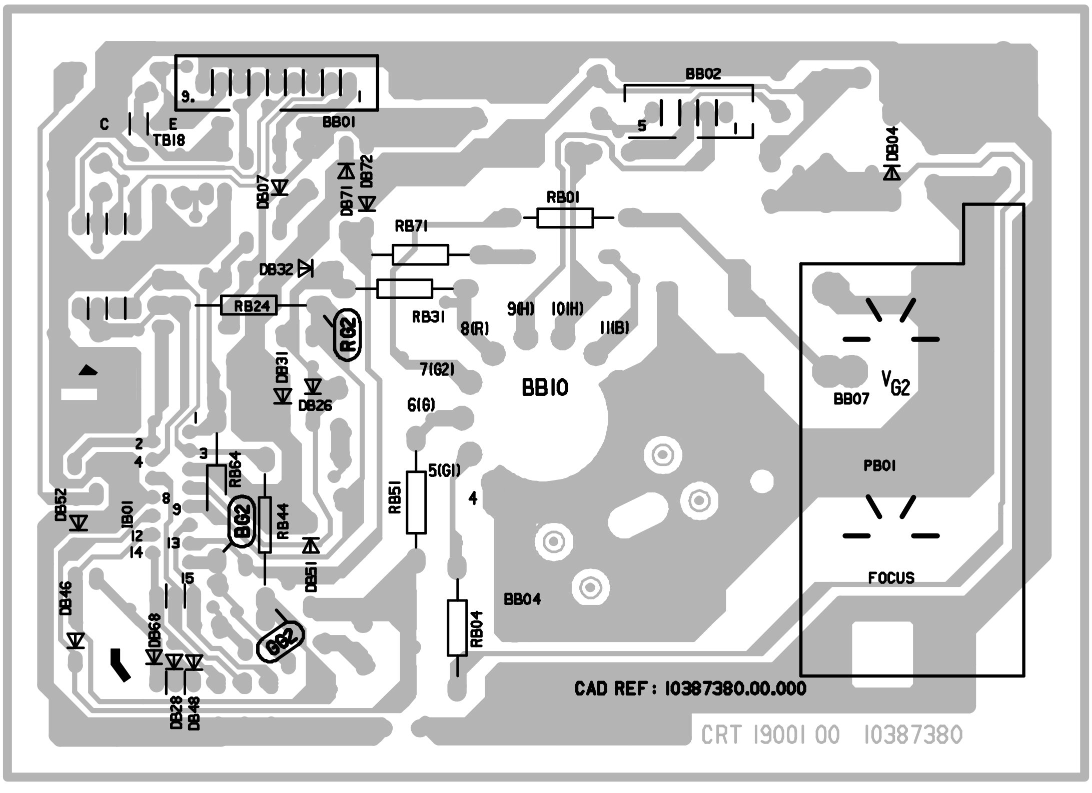
BB01
TB18
CB18
9
CB19
RB17
RB18
JB22
RB43
RM04
RM02
5
BB02
FOCUS
CB10
JB20
10354890
CRT BS
19000 00
BB07
RB65
RB67
TB61
RB63
RB30
TB41
RB61
RB62
RB25
RB42
RB22
TB22
TB42
RB21
DB31
DB71
JB21
2
8(R)
9(H)
10(H)
11(B)
7(G2)
RED
BLUE
6(G)
GREEN
5(G1)
BB10
4
RM15
RM14
RM13
RM12
TM08
DM01
TM05
TM06
TM04
CM37
DM10
DM02
DM09
RM45
RM20
CM41
JM40
TM07
RM22
BM04
3
IB01
B62
RB26
CB46
RB46
DB28
14
15
B62
DB51
R62
DB52
CB66
DB68
DB46
DB48
DB72
BB04
DM07
DM08
RM09
TM01
RM30
TM02
CM15
BM03
3
DB04
TM09
CM30
CM14
RM07
RM10
RM47
RM46
RM06
CAD REF : 10354890.00.000

CRT 19001 - CRT 19004

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE -
LATO COMPONENTI - LADO COMPONENTES

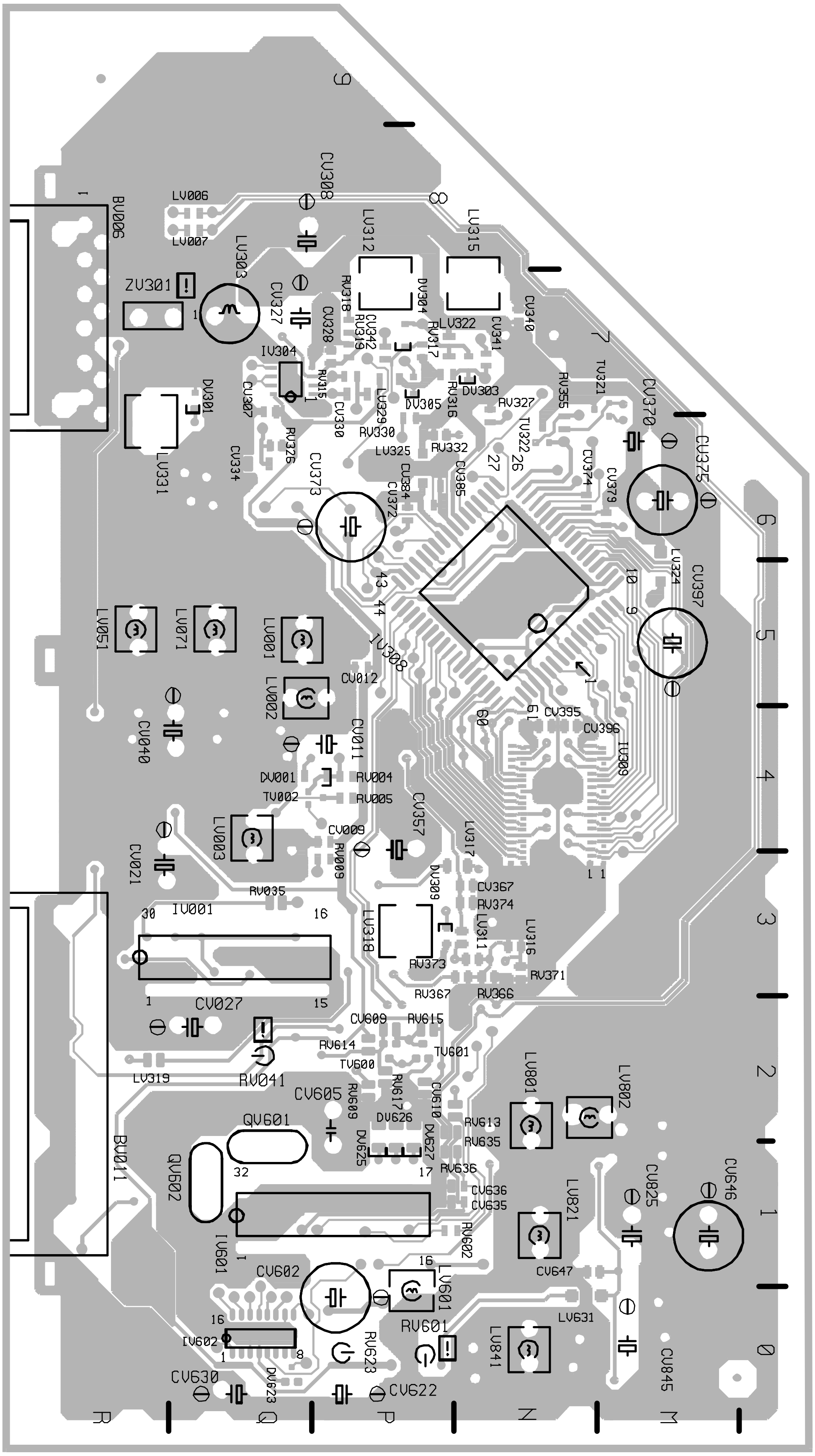

CB04
CB13
BB02
1
5
RB06
CB06
CB08
BB01
RB16
CB19
RB79
CB11
DB04
RB02
JB07
RB08
CB07
9
RB18
E
TB18
C
CB18
RB07
RB17
DB72
DB71
DB07
RB62
CB63
RB42
CB23
CB43
CB03
RB01
RB71
DB32
RB61
RB63
RB21
JB01
JB02
RB31
RB24
JB03
RB41
RB43
RB23
RB22
BB07
VG2
CB01
11(B)
10(H)
9(H)
8(R)
BB10
7(G2)
6(G)
5(G1)
4
RB51
DB26
DB31
CB26
RB64
CB05
JB05
RB44
RB26
JB04
DB52
DB51
15
IB01
PB01
BB04
SW
CRT
GROUND
RB04
CB46
RB46
DB66
RB66
CB66
DB68
DB46
RB48
DB48
DB28
RB28
RB68
CB12
CRT 19001 00 10387380

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


9.
1
BB01
C
E
TB18
BB02
5
1
DB04
DB07
DB71
DB72
RB01
RB71
DB32
RB24
RB31
RG2
9(H)
10(H)
11(B)
8(R)
7(G2)
BB10
DB31
DB26
6(6)
1
2
4
3
RB64
8
9
IB01
12
13
14
15
DB52
BG2
RB44
RB51
5(G1)
4
DB51
VG2
BB07
PB01
FOCUS
DB46
DB68
GG2
RB04
BB04
DB28
DB48
CAD REF : 10387380.00.000
CRT 19001 00 10387380

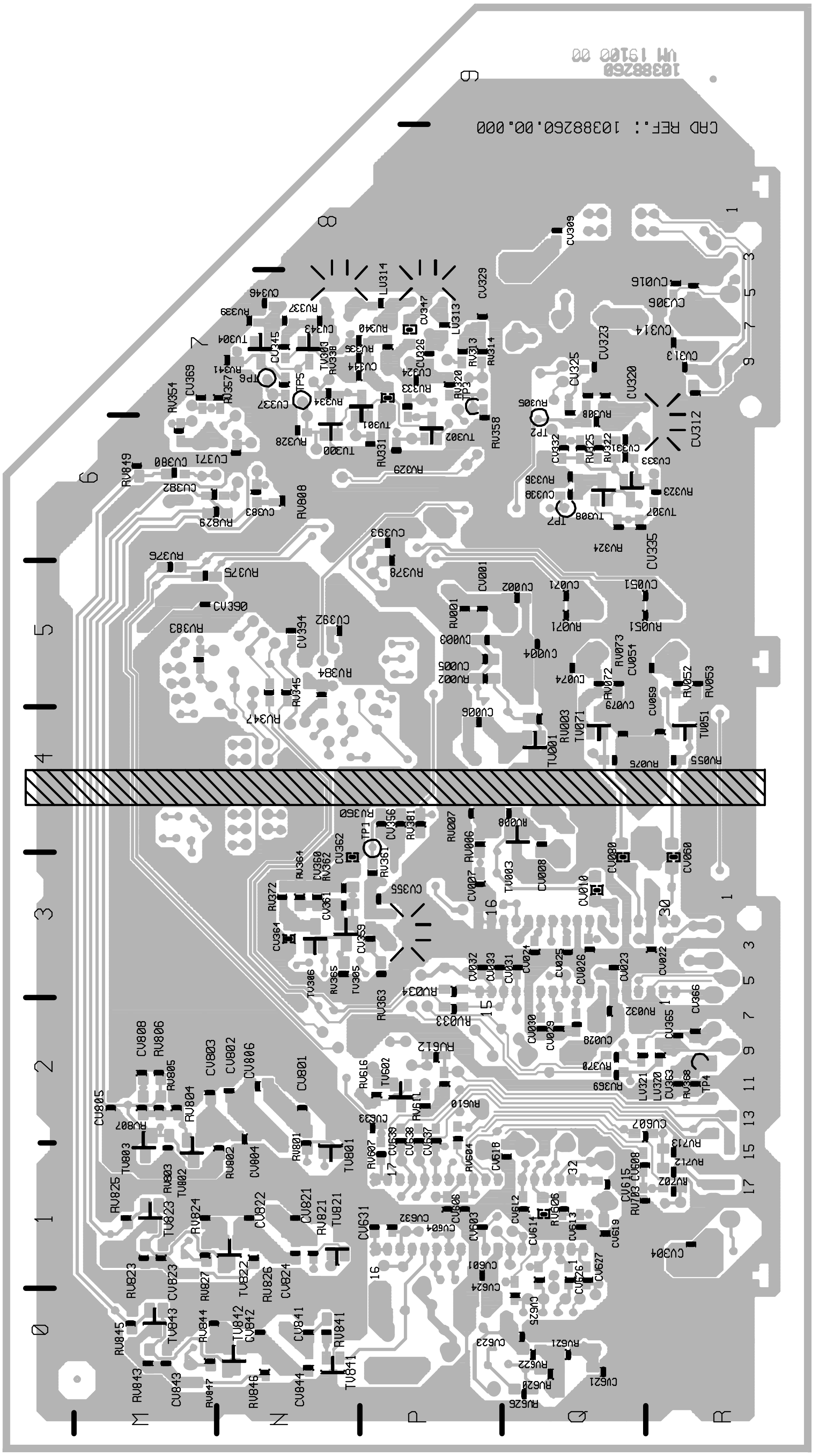
VM19100

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES


BV006
LV006
LV007
CV308
LV312
LV315
ZV301
LV303
CV327
RV318
CV328
CV342
RV319
DV304
LV322
RV317
CV341
CV340
IV304
RV315
DV301
CV307
CV330
LV329
DV305
RV316
DV303
RV327
RV355
TV321
CV370
CV375
TV322
LV331
CV334
RV326
RV330
LV325
RV332
CV385
CV384
CV372
CV373
CV374
CV379
LV324
CV397
IV308
LV051
LV071
LV001
LV002
CV012
CV011
CV040
CV395
CV396
IV309
DV001
RV004
TV002
RV005
CV357
LV003
CV009
RV009
CV021
LV317
DV309
CV367
RV374
LV311
LV316
RV035
IV001
LV318
RV373
RV371
CV027
RV367
RV366
CV609
RV615
RV614
TV601
TV600
LV319
RV041
RV617
CV605
RV609
CV610
LV801
LV802
QV601
DV626
RV613
DV627
RV635
DV625
BV011
QV602
RV636
CV636
CV635
LV821
CV825
CV646
IV601
RV602
CV647
CV602
LV601
RV601
LV631
IV602
LV841
RV623
DV623
CV630
CV622
CV845
1
30
16
15
32
17
8
27
26
43
44
10
9
60
61
9
8
7
6
5
4
3
2
1
0
R
Q
P
N
M

VM19100

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


CAD REF.: 10388260.00.000
VM 19100 00
10388260
M
N
P
Q
R
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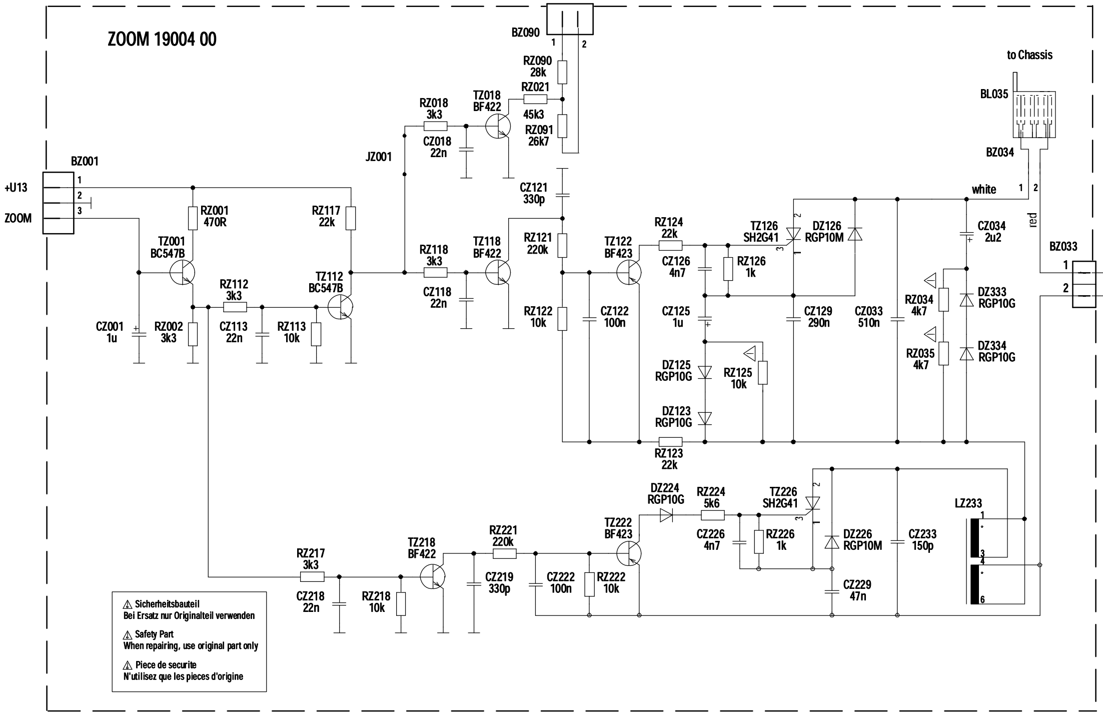
1
2
3
4
5
6
7
8
9

ZOOM 19004 00

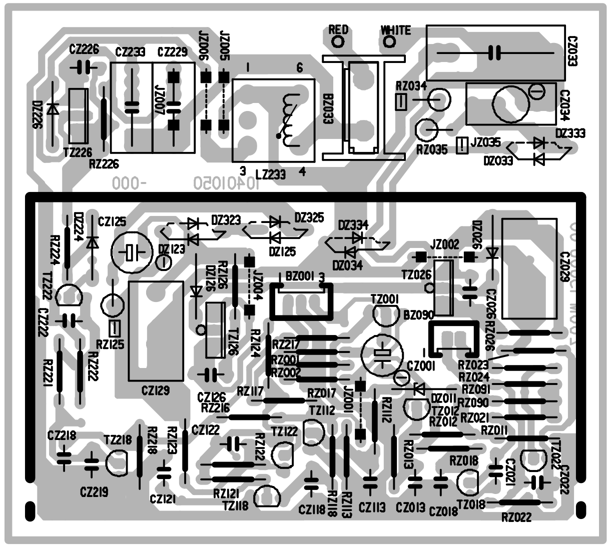

ZOOM 19004 00
BZ090
1
2
RZ090
28k
RZ021
45k3
RZ091
26k7
RZ018
3k3
TZ018
BF422
CZ018
22n
JZ001
CZ121
330p
BZ001
+U13
ZOOM
1
2
3
RZ001
470R
TZ001
BC547B
RZ117
22k
RZ112
3k3
TZ112
BC547B
CZ001
1u
RZ002
3k3
CZ113
22n
RZ113
10k
RZ118
3k3
TZ118
BF422
CZ118
22n
RZ121
220k
RZ122
10k
TZ122
BF423
CZ122
100n
RZ124
22k
CZ126
4n7
RZ126
1k
TZ126
SH2G41
DZ126
RGP10M
CZ125
1u
DZ125
RGP10G
RZ125
10k
DZ123
RGP10G
CZ129
290n
CZ033
510n
RZ123
22k
to Chassis
BL035
BZ034
white
red
CZ034
2u2
RZ034
4k7
RZ035
4k7
DZ333
RGP10G
DZ334
RGP10G
BZ033
DZ224
RGP10G
RZ224
5k6
TZ226
SH2G41
CZ226
4n7
RZ226
1k
DZ226
RGP10M
CZ233
150p
LZ233
CZ229
47n
RZ221
220k
TZ222
BF423
TZ218
BF422
RZ217
3k3
CZ218
22n
RZ218
10k
CZ219
330p
CZ222
100n
RZ222
10k

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

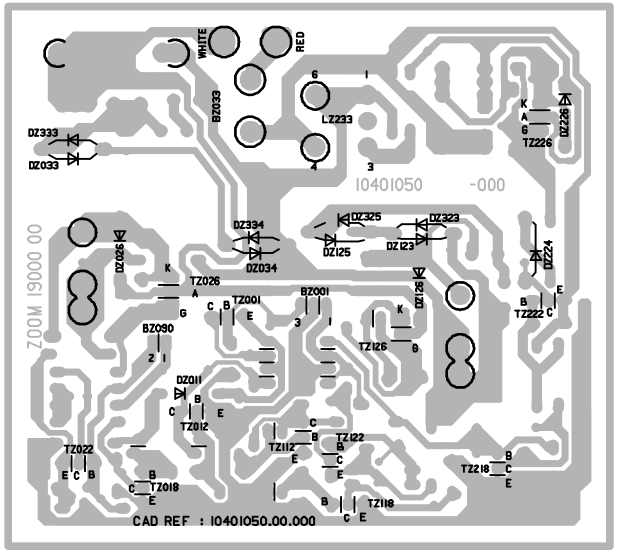
⚠ Safety Part
When repairing, use original part only

⚠ Piece de securite
N'utilisez que les pieces d'origine

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES


RED
WHITE
CZ226
CZ233
CZ229
JZ005
JZ006
JZ007
CZ033
CZ034
RZ034
RZ035
JZ035
DZ333
DZ033
BZ033
LZ233
TZ226
RZ226
DZ226
10401050 -000
CZ125
DZ323
DZ325
DZ334
DZ123
DZ125
DZ034
JZ002
DZ026
CZ029
TZ026
BZ001
TZ001
BZ090
CZ001
RZ125
CZ129
CZ126
RZ216
RZ117
RZ017
TZ112
TZ122
TZ218
CZ218
CZ219
CZ121
CZ122
RZ121
TZ118
CZ118
CZ113
CZ013
CZ018
TZ018
RZ018
RZ022
TZ022
CZ022
RZ011
RZ021
RZ090
RZ091
RZ023
RZ024
RZ012
DZ011
TZ012
RZ224
TZ222
CZ222
RZ221
RZ222
DZ224

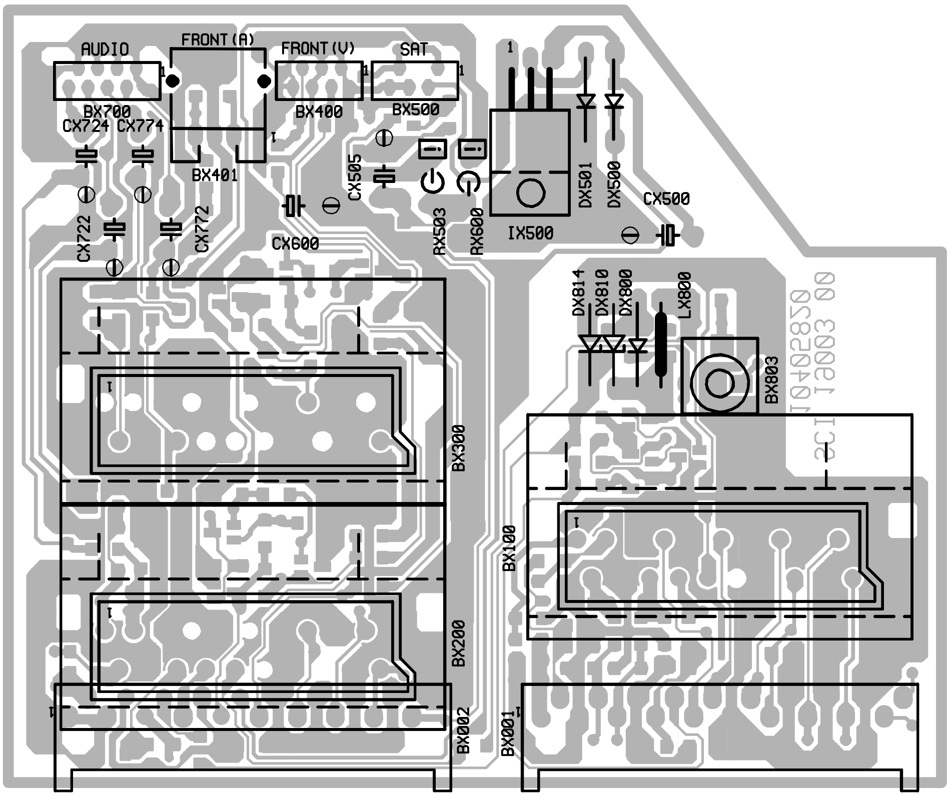
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


WHITE
RED
BZ033
LZ233
DZ333
DZ033
DZ226
TZ226
K
A
G
10401050 -000
ZOOM 19000 00
DZ334
DZ034
DZ325
DZ125
DZ323
DZ123
DZ026
DZ224
TZ026
TZ001
BZ001
DZ126
TZ126
BZ090
TZ222
DZ011
TZ012
TZ022
TZ018
TZ112
TZ122
TZ218
TZ118
CAD REF : 10401050.00.000

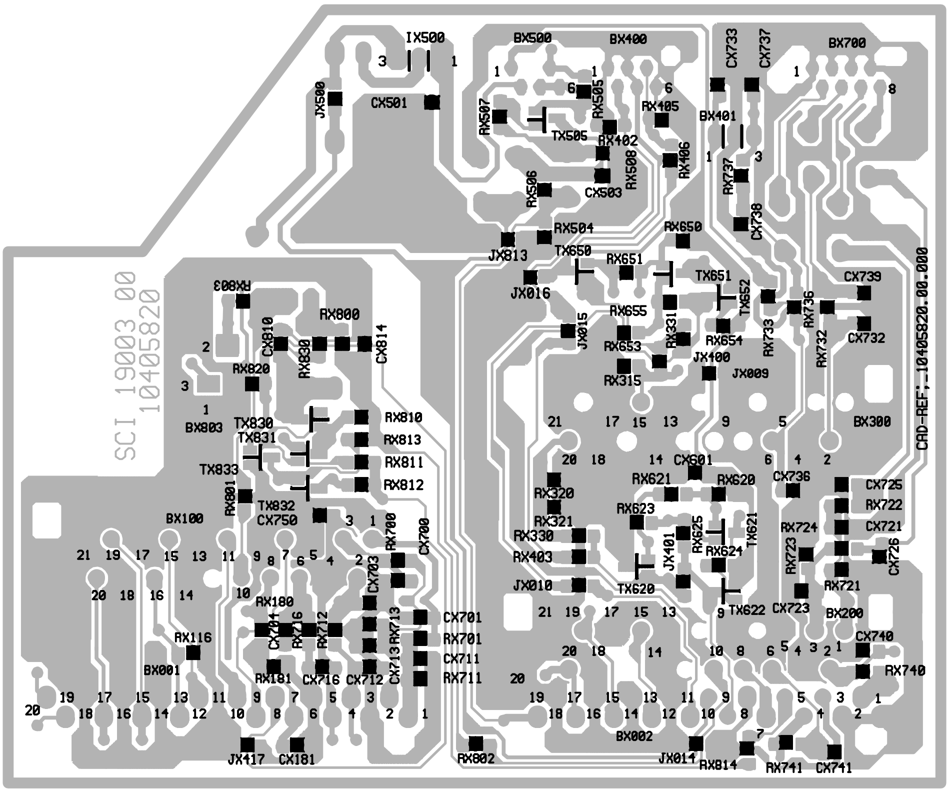
MC-Service

SCI 19004

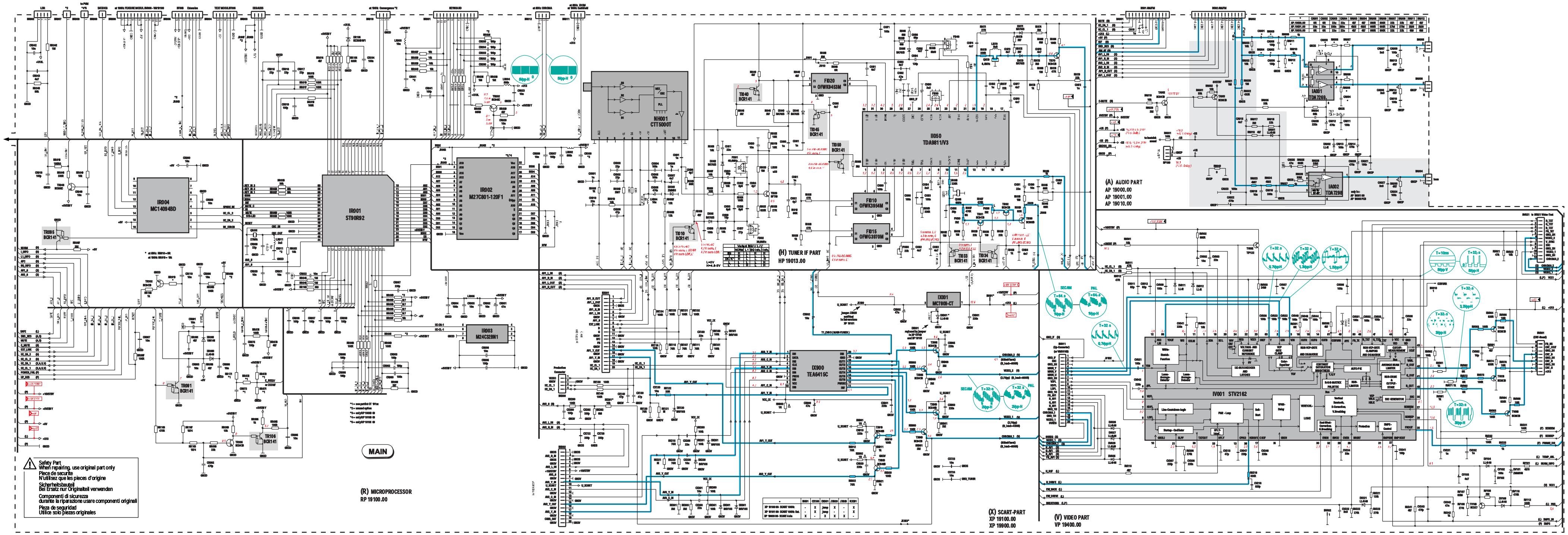
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES


AUDIO
FRONT(A)
FRONT(V)
SAT
BX700
BX400
BX500
CX724
CX774
BX401
CX505
CX722
CX772
CX600
RX503
RX600
IX500
DX501
DX500
CX500
DX814
DX810
DX800
LX800
BX803
BX300
BX100
BX200
BX002
BX001

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

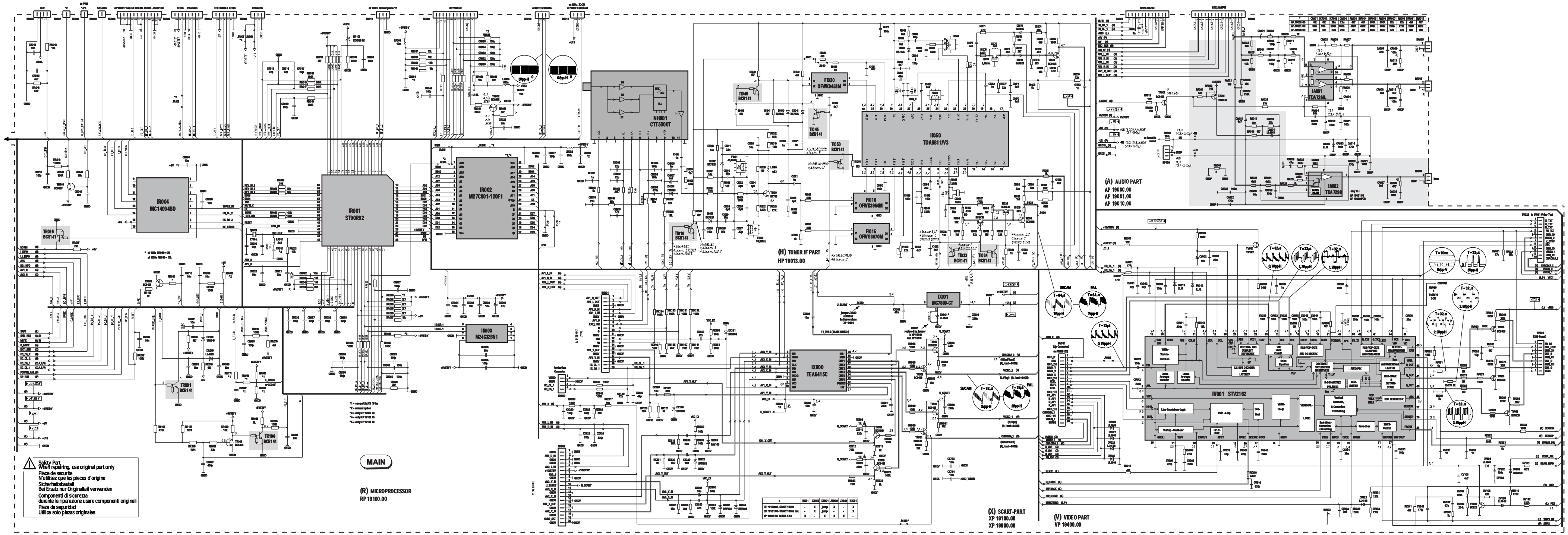

IX500
BX500
BX400
CX733
CX737
BX700
JX500
CX501
RX507
TX505
RX505
RX402
RX405
BX401
RX506
CX503
RX508
RX406
RX737
CX738
RX504
RX650
JX813
TX650
RX651
TX651
JX016
CX739
RX803
RX800
CX810
RX830
CX814
RX655
RX331
TX652
RX736
CX732
JX015
RX653
RX654
RX733
RX732
RX820
RX315
JX400
JX009
BX803
TX830
TX831
RX810
RX813
RX811
RX812
TX833
RX801
TX832
CX750
BX100
BX300
CX601
RX621
RX620
CX736
CX725
RX722
RX320
RX321
RX623
RX330
RX403
JX010
RX625
TX621
RX724
CX721
RX624
RX723
CX726
JX401
TX620
RX721
TX622
CX723
BX200
CX740
RX740
RX700
CX700
CX703
RX180
CX704
RX716
RX712
RX713
CX701
RX701
CX711
RX711
RX116
BX001
RX181
CX716
CX712
CX713
JX417
CX181
RX802
BX002
JX014
RX814
RX741
CX741
SCI 19003 00
10405820
CAD-REF.:10405820.00.000

MAIN SCHEMATIC DIAGRAM - SCHEMA PLATINE PRINCIPALE - SCHALTUNG HAUPTPLATINE - SCHEMA PIASTRA PRINCIPALE - ESQUEMA PLATINA PRINCIPAL


IR004
MC14094BD
IR001
ST90R92
IR002
M27C801-120F1
IR003
M24C32BN1
TR106
BCR141
MAIN
*1 = see partlist CT 191xx
*2 = unused option
*3 = only RP 19100.00
*4 = only RP 19100.00
*5 = only RP 19101.00
(R) MICROPROCESSOR
RP 19100.00
NH001
CTT5000T
FI020
OFWK9453M
FI010
OFWK3954M
FI015
OFWG3970M
TI045
BCR141
TI050
BCR141
II050
TDA9811/V3
FI002
38,9MHz
Variant BG/I/L/L'
NORM
L1
BG Info.
I Info.
(H) TUNER IF PART
HP 19013.00
0 in PAL-BG /MNC
4.5 in norm. L'
U_SCART
JX020
Jumper JX020 notfitted in Sat-versions XP 19101
CX002
10u
IX001
MC7809-CT
IX900
TEA6415C
(X) SCART-PART
XP 19100.00
XP 19900.00
IA001
TDA7269
IA002
TDA7269
(A) AUDIO PART
AP 19000.00
AP 19001.00
AP 19010.00
to leetdk sound
BP100
IV001 STV2162
SECAM
PAL
H_RIF (L)
H_DRIVE (L)
EW_BACK (L)
EW_DRIVE (L)
BREATHING (L,P)
GND_TUNER
(V) VIDEO PART
VP 19400.00

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
durante la riparazione usare componenti originali
Pieza de seguridad
Utilice solo piezas originales

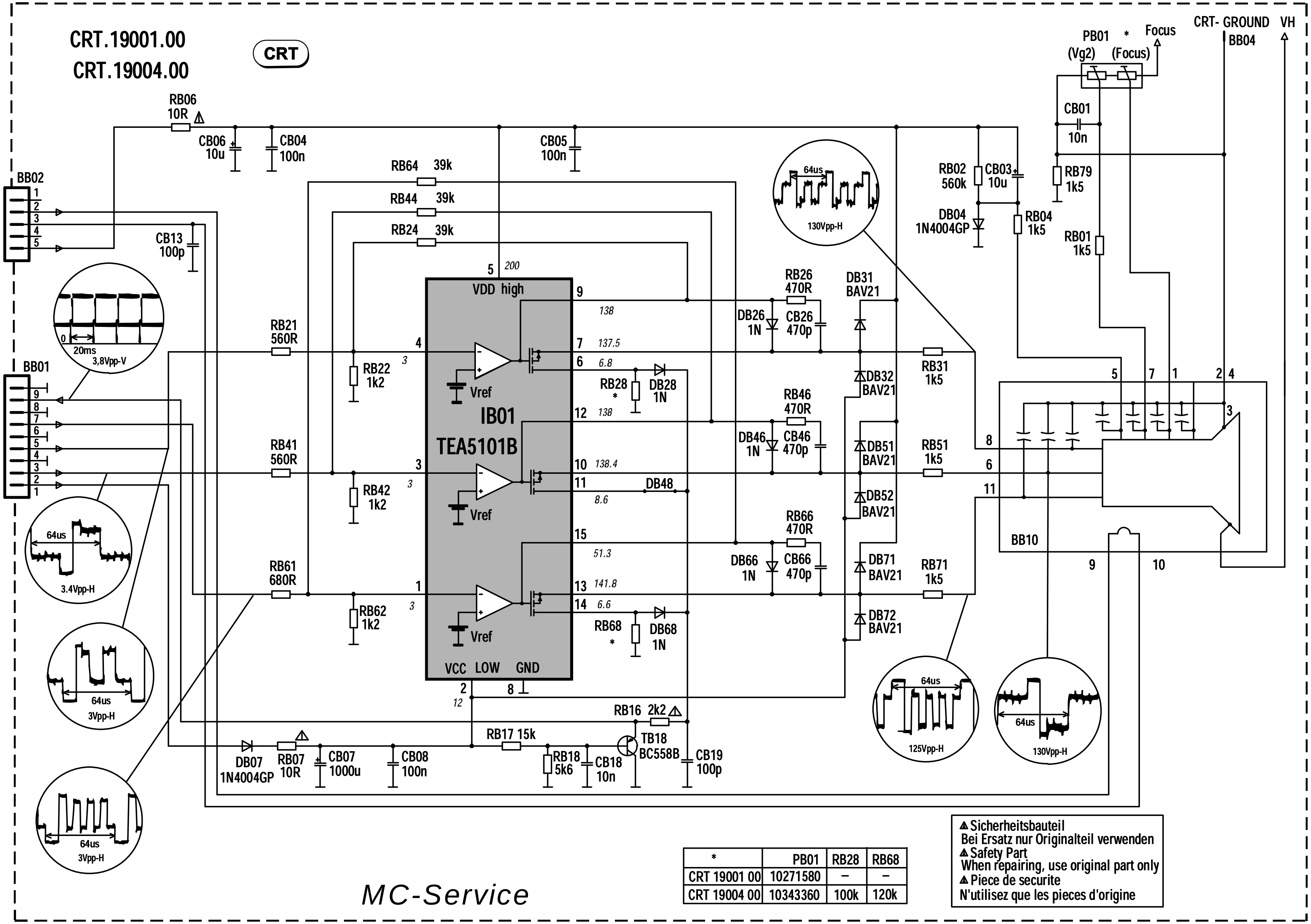
MAIN SCHEMATIC DIAGRAM - SCHEMA PLATINE PRINCIPALE - SCHALTUNG HAUPTPLATINE - SCHEMA PIASTRA PRINCIPALE - ESQUEMA PLATINA PRINCIPAL


IR004
MC14094BD
IR001
ST90R92
IR002
M27C801-120F1
IR003
M24C32BW1
TR005
BCR141
TR001
BCR141
TR106
BCR141
MAIN
(R) MICROPROCESSOR
RP 19100.00
NH001
CTT5000T
FI020
OFWK9453M
TI040
BCR141
TI045
BCR141
TI050
BCR141
II050
TDA9811/V3
FI010
OFWK3954M
FI015
OFWG3870M
TI010
BCR141
TI033
BCR141
TI034
BCR141
(H) TUNER IF PART
HP 19013.00
IA001
TDA7269
IA002
TDA7269
(A) AUDIO PART
AP 19000.00
AP 19001.00
AP 19010.00
IX000
TEA6415C
IX001
MC7808-CT
SECAM
PAL
(X) SCART-PART
XP 19100.00
XP 19900.00
IV001 STV2162
(V) VIDEO PART
VP 19400.00

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
durante la riparazione usare componenti originali
Pieza de seguridad
Utilice solo piezas originales

RP C19
First issue 07 / 98

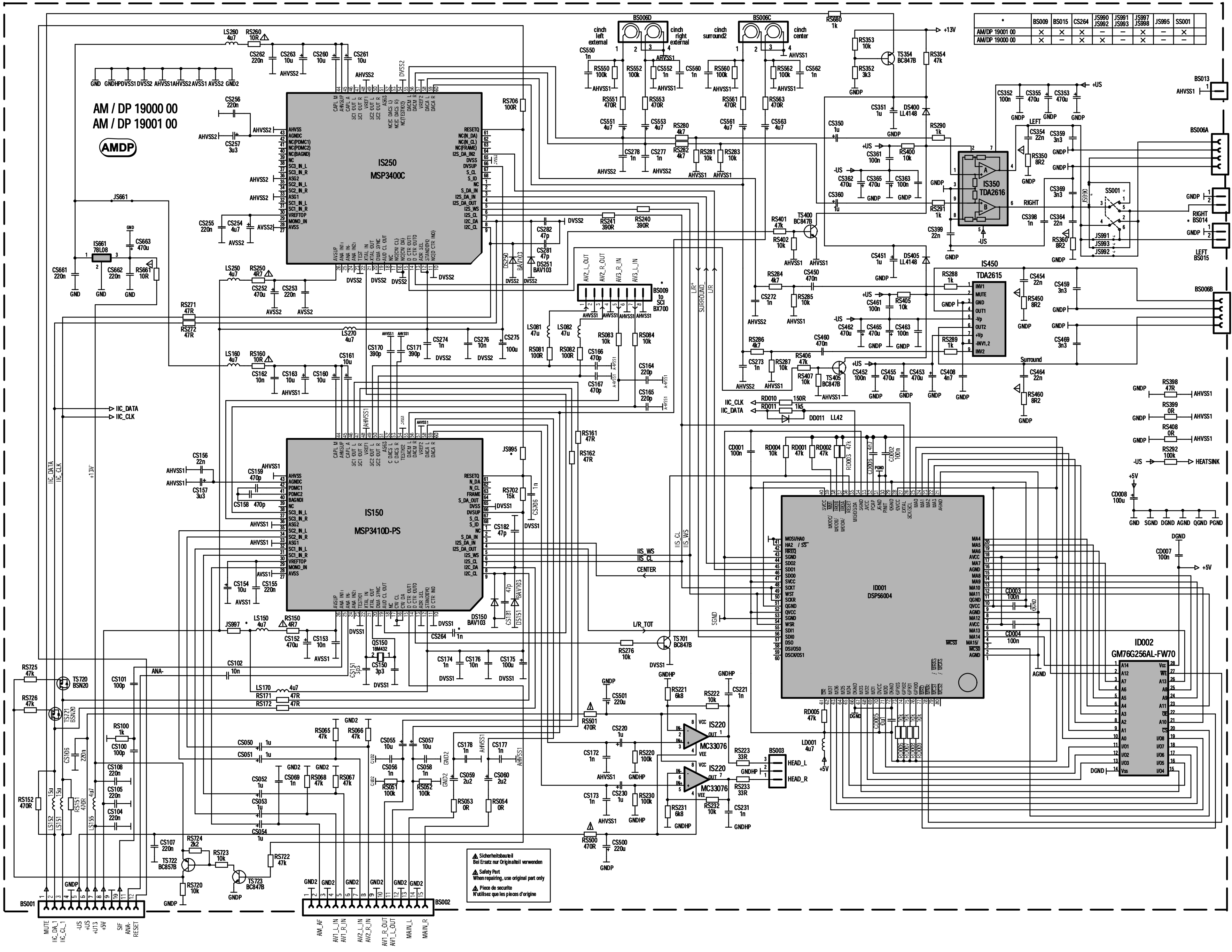
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE
PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO


CRT.19001.00
CRT.19004.00
CRT
RB06 10R ⚠
CB06 10u
CB04 100n
CB05 100n
RB64 39k
RB44 39k
RB24 39k
BB02
HEAT
H.GND
UVIDEO
to BL050
CB13 100p
1 2 3 4 5
20ms
3,8Vpp-V
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
to BV001
9 8 7 6 5 4 3 2 1
64us
3.4Vpp-H
3Vpp-H
RB21 560R
RB41 560R
RB61 680R
RB22 1k2
RB42 1k2
RB62 1k2
IB01
TEA5101B
VDD high
VCC LOW GND
Vref
5 200
9 138
4 3
7 137.5
6 6.8
12 138
3 3
10 138.4
11 8.6
15 51.3
1 3
13 141.8
14 6.6
2 12
8
RB28 *
DB28 1N
DB48
RB68 *
DB68 1N
RB16 2k2 ⚠
RB17 15k
TB18 BC558B
RB18 5k6
CB18 10n
CB19 100p
DB07 1N4004GP
RB07 10R ⚠
CB07 1000u
CB08 100n
RB26 470R
DB26 1N
CB26 470p
RB46 470R
DB46 1N
CB46 470p
RB66 470R
DB66 1N
CB66 470p
DB31 BAV21
DB32 BAV21
DB51 BAV21
DB52 BAV21
DB71 BAV21
DB72 BAV21
RB31 1k5
RB51 1k5
RB71 1k5
130Vpp-H
125Vpp-H
PB01 *
(Vg2) (Focus)
Focus
CRT- GROUND
BB04
VH
CB01 10n
RB02 560k
CB03 10u
DB04 1N4004GP
RB79 1k5
RB04 1k5
RB01 1k5
5 7 1 2 4 3
8 6 11
BB10
9 10

*	PB01	RB28	RB68
CRT 19001 00	10271580	–	–
CRT 19004 00	10343360	100k	120k

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
⚠ Safety Part
When repairing, use original part only
⚠ Piece de securite
N'utilisez que les pieces d'origine

AUDIO SIGNAL/DOLBY MODULE - MODULE AUDIO/DOLBY - TON SIGNAL/DOLBY BAUSTEIN - MODULO AUDIO/DOLBY - MÓDULO AUDIO/DOLBY


AM / DP 19000 00
AM / DP 19001 00
AMDP
IS250
MSP3400C
IS150
MSP3410D-PS
IS350
TDA2616
IS450
TDA2615
ID001
DSP56004
ID002
GM76G256AL-FW70
IS220
MC33076
IS661
78L08
TS354
BC847B
TS400
BC847B
TS405
BC847B
TS701
BC847B
TS720
BSN20
TS721
BSN20
TS722
BC857B
TS723
BC847B
BS006D
BS006C
BS006A
BS006B
BS013
BS014
BS015
BS009
to
SCI
BX700
BS003
HEAD_L
HEAD_R
BS001
BS002
cinch
left
external
cinch
right
external
cinch
surround2
cinch
center
LEFT
RIGHT
SURROUND
Surround
SS001
JS990
JS991
JS993
JS992
JS995
JS997
JS661
IIC_DATA
IIC_CLK
IIS_WS
IIS_CL
CENTER
L/R_TOT
L/R
SURROUND
+13V
+US
-US
+5V
HEATSINK
MUTE
IIC_DA_1
IIC_CL_1
-US
+US
+U13
+5V
SIF
ANA-
RESET
AM_AF
AV1_L_IN
AV1_R_IN
AV2_L_IN
AV2_R_IN
AV1_R_OUT
AV1_L_OUT
MAIN_L
MAIN_R
AV2_L_OUT
AV2_R_OUT
AV3_R_IN
AV3_L_IN
GND
GNDP
GNDHP
DGND
AGND
SGND
QGND
PGND
AHVSS1
AHVSS2
AVSS1
AVSS2
DVSS1
DVSS2

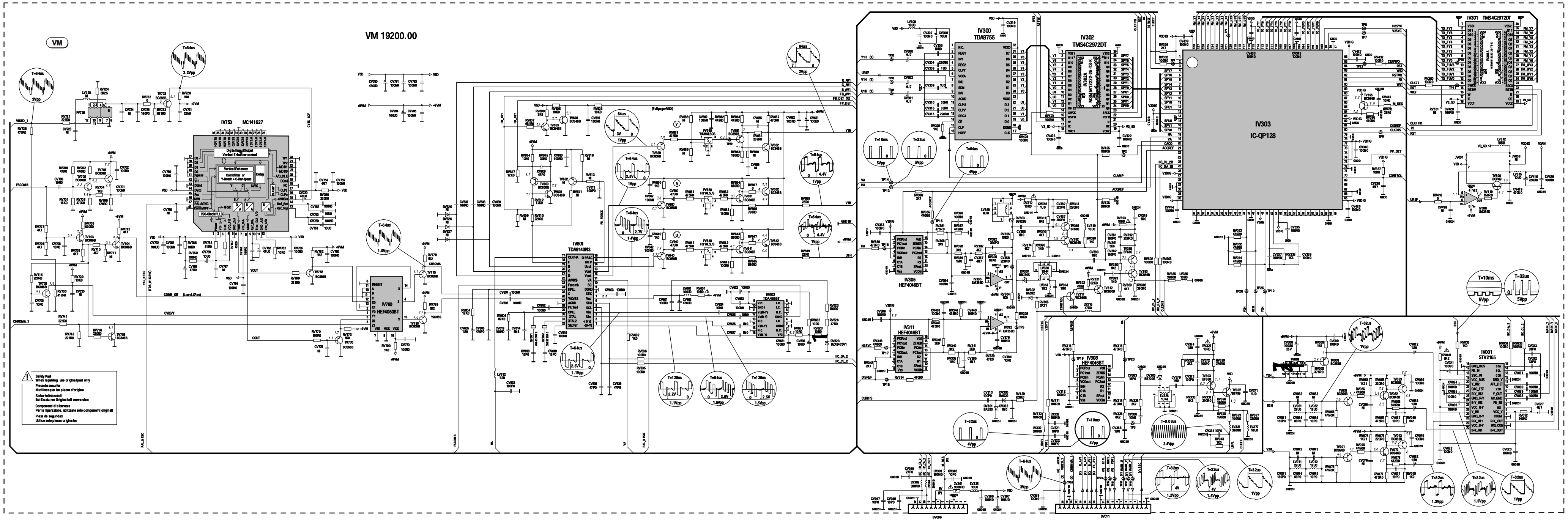
*	BS009	BS015	CS264	JS990 JS992	JS991 JS993	JS997 JS998	JS995	SS001	
AM/DP 19001 00	×	×	×	–	–	×	–	×	
AM/DP 19000 00	×	–	×	×	–	×	–	–	

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

⚠ Safety Part
When repairing, use original part only

⚠ Piece de securite
N'utilisez que les pieces d'origine

VIDEO MODULE - MODULE VIDEO - VIDEO BAUSTEIN - MODULO VIDEO - MÓDULO VIDEO


VM
VM 19200.00
IV750 MC141627
Vertical Enhancer
IV601 TDA9143N3
IV780 HEF4053BT
IV300 TDA8755
IV302 TMS4C2972DT
IV303 IC-QP128
IV301 TMS4C2972DT
IV305 HEF4066BT
IV311 HEF4066BT
IV308 HEF4066BT
IV001 STV2165
CHROMA_1
PAL_NTSC

Safety Part
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione, utilizzare solo componenti originali

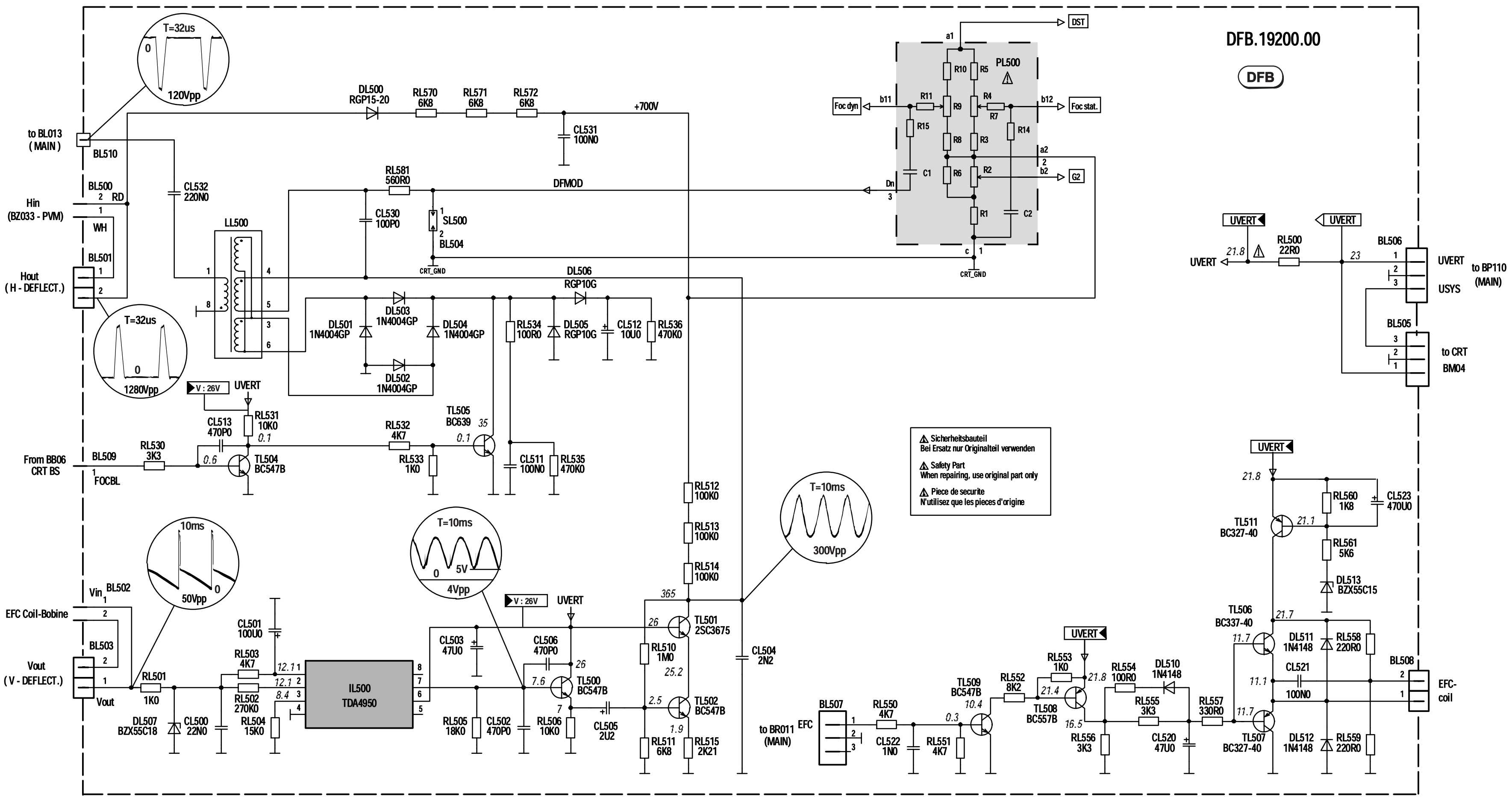
Pieza de seguridad
Utilice solo piezas originales

Updated 11 / 98

ICC19 100 Hz
First issue 09 / 97

MC-Service

DYNAMIC FOCUS MODULE - MODULE FOCUS DYNAMIQUE - DYNAMIKFOKUS BAUSTEIN - MODULO FUOCO DINAMICO - MÓDULO FOCO DINÁMICO



DFB.19200.00
DFB
T=32us
0
120Vpp
to BL013
(MAIN)
BL510
Hin
(BZ033 - PVM)
BL500
RD
WH
BL501
Hout
(H - DEFLECT.)
T=32us
0
1280Vpp
DL500
RGP15-20
RL570
6K8
RL571
6K8
RL572
6K8
+700V
CL531
100N0
CL532
220N0
RL581
560R0
DFMOD
CL530
100P0
SL500
BL504
CRT_GND
LL500
DL506
RGP10G
DL501
1N4004GP
DL503
1N4004GP
DL504
1N4004GP
DL502
1N4004GP
RL534
100R0
DL505
RGP10G
CL512
10U0
RL536
470K0
V : 26V
UVERT
RL531
10K0
CL513
470P0
RL530
3K3
From BB06
CRT BS
BL509
FOCBL
TL504
BC547B
0.6
0.1
RL532
4K7
RL533
1K0
TL505
BC639
35
0.1
CL511
100N0
RL535
470K0
RL512
100K0
RL513
100K0
RL514
100K0
365
T=10ms
300Vpp
PL500
a1
DST
R10
R5
R11
R4
b11
b12
Foc dyn
Foc stat.
R9
R7
R15
R14
R8
R3
a2
b2
G2
Dn
3
C1
R6
R2
R1
C2
c
CRT_GND
UVERT
RL500
22R0
21.8
23
BL506
UVERT
USYS
to BP110
(MAIN)
BL505
to CRT
BM04
10ms
0
50Vpp
Vin
BL502
EFC Coil-Bobine
BL503
Vout
(V - DEFLECT.)
RL501
1K0
DL507
BZX55C18
CL500
22N0
CL501
100U0
RL503
4K7
RL502
270K0
RL504
15K0
12.1
12.1
8.4
IL500
TDA4950
T=10ms
0
5V
4Vpp
V : 26V
UVERT
CL503
47U0
CL506
470P0
26
7.6
7
TL500
BC547B
RL505
18K0
CL502
470P0
RL506
10K0
CL505
2U2
26
TL501
2SC3675
RL510
1M0
25.2
2.5
TL502
BC547B
1.9
RL511
6K8
RL515
2K21
CL504
2N2
BL507
to BR011
(MAIN)
EFC
RL550
4K7
CL522
1N0
RL551
4K7
0.3
TL509
BC547B
10.4
RL552
8K2
21.4
UVERT
RL553
1K0
21.8
TL508
BC557B
16.5
RL556
3K3
RL554
100R0
DL510
1N4148
RL555
3K3
CL520
47U0
RL557
330R0
UVERT
21.8
RL560
1K8
CL523
470U0
TL511
BC327-40
21.1
RL561
5K6
DL513
BZX55C15
TL506
BC337-40
21.7
11.7
DL511
1N4148
RL558
220R0
CL521
100N0
11.1
11.7
TL507
BC327-40
DL512
1N4148
RL559
220R0
BL508
EFC-
coil

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

⚠ Safety Part
When repairing, use original part only

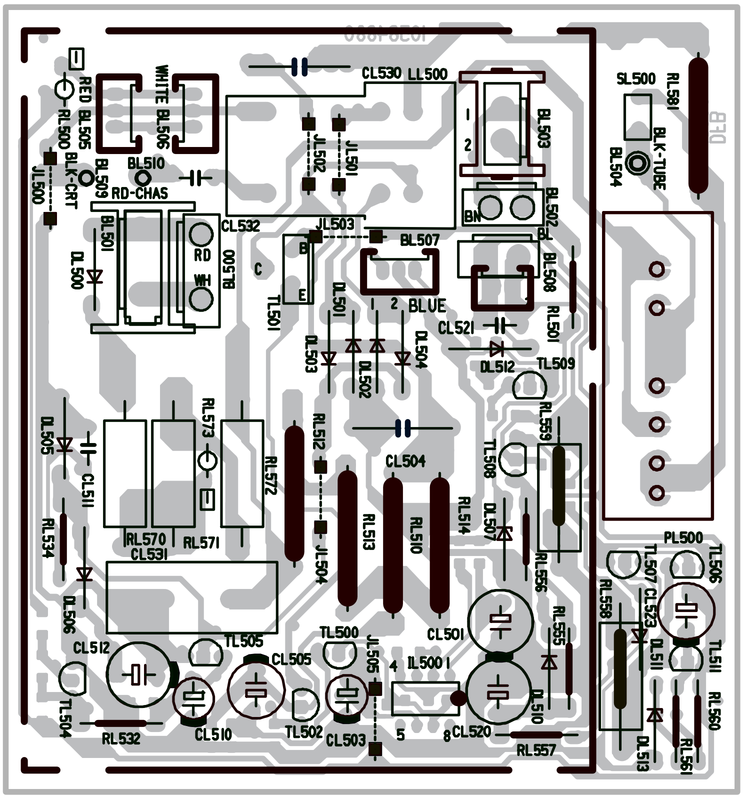
⚠ Piece de securite
N'utilisez que les pieces d'origine

MC-Service

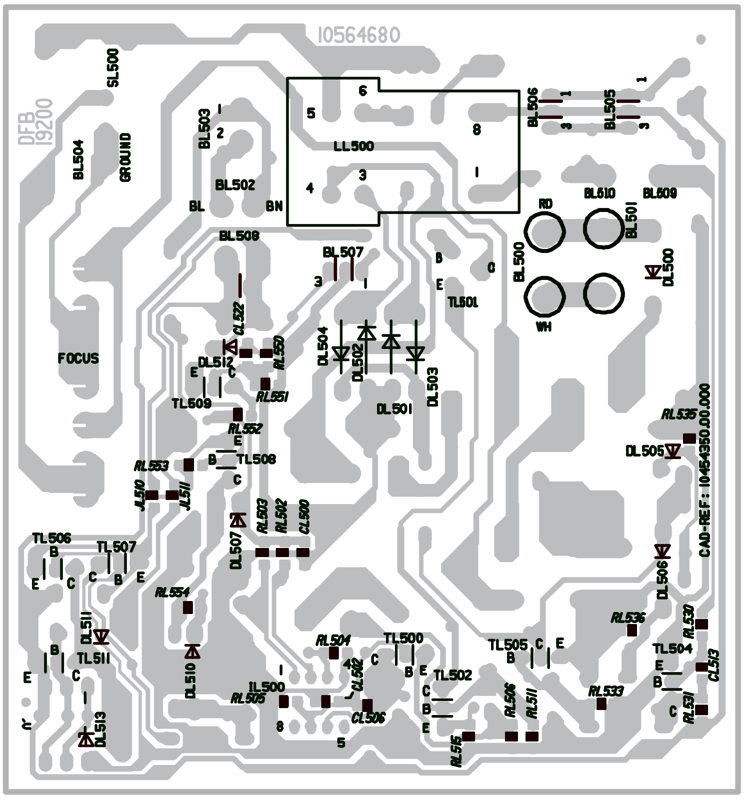
DFB 19200

DYNAMIC FOCUS MODULE - MODULE FOCUS DYNAMIQUE - DYNAMIKFOKUS BAUSTEIN - MODULO FUOCO DINAMICO - MÓDULO FOCO DINÁMICO

COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES


CL530
LL500
SL500
RL581
BL503
BLK-TUBE
BL504
DFB
RED BL505
WHITE BL506
RL500
BLK-CRT
JL500
BL509
BL510
RD-CHAS
JL502
JL501
BN
BL502
BL501
DL500
CL532
RD
WH
BL500
JL503
BL507
BL508
RL501
TL501
DL501
BLUE
CL521
DL503
DL502
DL504
DL512
TL509
RL573
RL512
RL559
DL505
CL511
RL572
CL504
TL508
RL570
RL571
CL531
RL513
RL510
RL514
DL507
PL500
RL534
JL504
RL556
TL507
CL523
TL506
DL506
RL558
RL555
CL512
TL505
TL500
CL501
CL505
JL505
IL500
DL511
TL511
RL560
TL504
RL532
CL510
TL502
CL503
CL520
DL510
DL513
RL557
RL561

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


I0564680
SL500
DFB 19200
BL504
GROUND
BL503
BL502
BL
BN
LL500
BL506
BL505
BL610
BL501
BL609
RD
BL508
BL507
B
E
C
TL501
BL500
DL500
WH
FOCUS
CL522
DL512
RL550
TL509
RL551
DL504
DL502
DL503
DL501
RL552
TL508
RL553
JL510
JL511
RL535
DL505
CAD-REF : 1045350.00.000
TL506
TL507
DL507
RL503
RL502
CL500
DL506
RL554
RL536
RL530
DL511
TL511
DL510
RL504
TL500
TL505
TL504
CL513
IL500
CL502
TL502
RL505
RL506
RL511
RL533
RL531
DL513
CL506
RL515

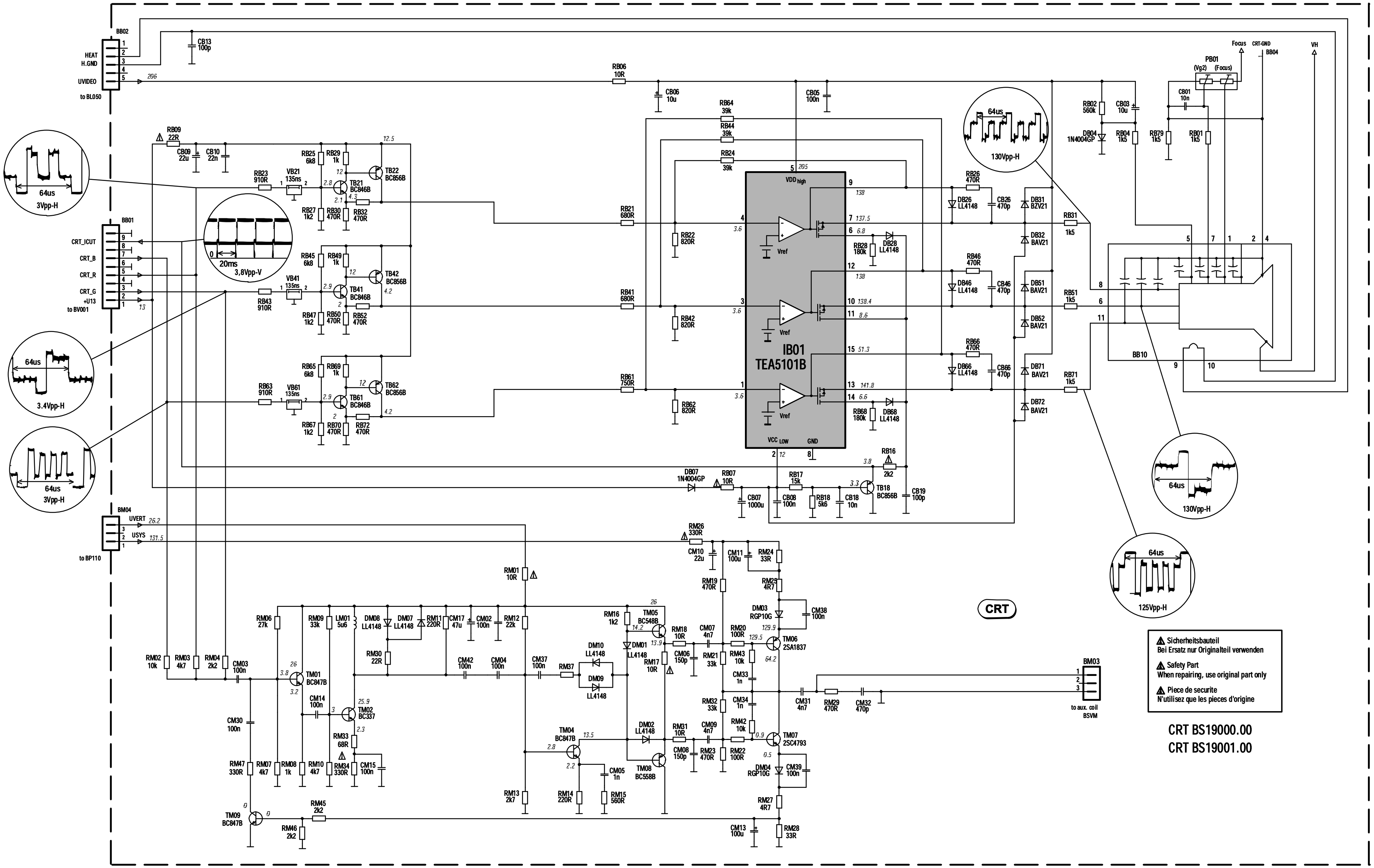
ICC19 100 Hz

Updated 11 / 98

First issue 00 / 94

MC-Service

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO


BB02
HEAT
H.GND
UVIDEO
to BL050
CB13 100p
RB06 10R
CB06 10u
CB05 100n
RB64 39k
RB44 39k
RB24 39k
RB09 22R
CB09 22u
CB10 22n
RB23 910R
VB21 135ns
RB25 6k8
RB29 1k
TB21 BC846B
TB22 BC856B
RB27 1k2
RB30 470R
RB32 470R
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
to BV001
20ms
3,8Vpp-V
64us
3Vpp-H
RB43 910R
VB41 135ns
RB45 6k8
RB49 1k
TB41 BC846B
TB42 BC856B
RB47 1k2
RB50 470R
RB52 470R
3.4Vpp-H
RB63 910R
VB61 135ns
RB65 6k8
RB69 1k
TB61 BC846B
TB62 BC856B
RB67 1k2
RB70 470R
RB72 470R
RB21 680R
RB41 680R
RB61 750R
RB22 820R
RB42 820R
RB62 820R
IB01
TEA5101B
VDD high
VCC LOW
GND
Vref
RB28 180k
DB28 LL4148
RB68 180k
DB68 LL4148
RB26 470R
RB46 470R
RB66 470R
DB26 LL4148
DB46 LL4148
DB66 LL4148
CB26 470p
CB46 470p
CB66 470p
DB31 BZV21
DB32 BAV21
DB51 BAV21
DB52 BAV21
DB71 BAV21
DB72 BAV21
RB31 1k5
RB51 1k5
RB71 1k5
130Vpp-H
125Vpp-H
RB02 560k
CB03 10u
DB04 1N4004GP
RB04 1k5
RB79 1k5
RB01 1k5
CB01 10n
PB01
(Vg2)
(Focus)
Focus
CRT-GND
BB04
VH
BB10
RB16 2k2
DB07 1N4004GP
RB07 10R
RB17 15k
CB07 1000u
CB08 100n
RB18 5k6
CB18 10n
TB18 BC856B
CB19 100p
BM04
UVERT
USYS
to BP110
RM26 330R
CM10 22u
CM11 100u
RM24 33R
RM01 10R
RM19 470R
RM25 4R7
DM03 RGP10G
CM38 100n
RM06 27k
RM09 33k
LM01 5u6
DM08 LL4148
DM07 LL4148
RM11 220R
CM17 47u
CM02 100n
RM12 22k
RM16 1k2
TM05 BC548B
DM01 LL4148
RM18 10R
CM07 4n7
RM20 100R
TM06 2SA1837
RM30 22R
CM42 100n
CM04 100n
CM37 100n
RM37
DM10 LL4148
DM09 LL4148
RM17 10R
CM06 150p
RM21 33k
RM43 10k
CM33 1n
RM02 10k
RM03 4k7
RM04 2k2
CM03 100n
TM01 BC847B
CM14 100n
TM02 BC337
CM30 100n
RM33 68R
CM15 100n
RM47 330R
RM07 4k7
RM08 1k
RM10 4k7
RM34 330R
TM04 BC847B
CM05 1n
DM02 LL4148
TM08 BC558B
RM31 10R
CM09 4n7
RM32 33k
CM34 1n
RM42 10k
TM07 2SC4793
CM08 150p
RM23 470R
RM22 100R
DM04 RGP10G
CM39 100n
RM27 4R7
RM13 2k7
RM14 220R
RM15 560R
TM09 BC847B
RM45 2k2
RM46 2k2
CM13 100u
RM28 33R
CM31 4n7
RM29 470R
CM32 470p
BM03
to aux. coil BSVM
CRT

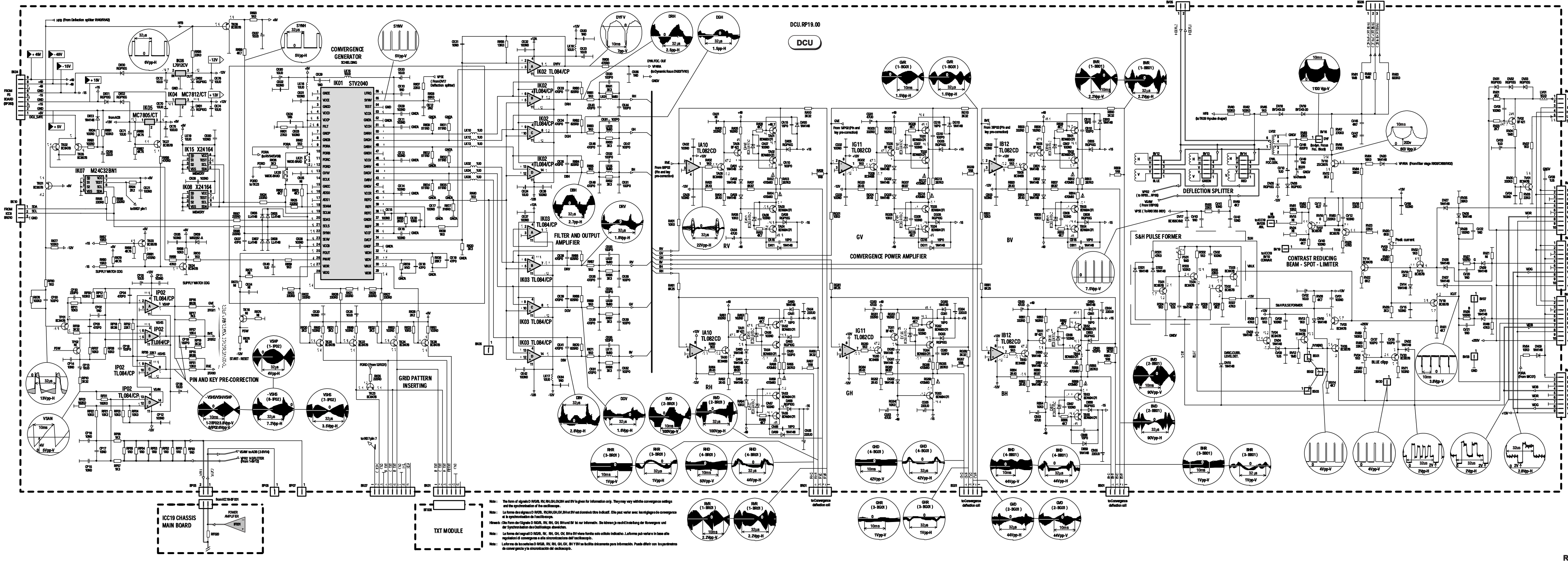
⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

⚠ Safety Part
When repairing, use original part only

⚠ Piece de securite
N'utilisez que les pieces d'origine

CRT BS19000.00
CRT BS19001.00

DIGITAL CONVERGENCE UNIT - PLATINE DE CONVERGENCES NUMERIQUES - DIGITALE KONVERGENZ EINHEIT - UNITÀ DI CONVERGENZA DIGITALE - UNIDAD DE CONVERGENCIA DIGITAL


DCU.RP19.00
DCU
CONVERGENCE GENERATOR
IK01 STV2040
IK02 TL084/CP
IK03 TL084/CP
IK04 MC7812/CT
IK05 MC7805/CT
IK06 L7912CV
IK07 M24C32BN1
IK08 X24164
IK15 X24164
IP02 TL084/CP
SYNH
SYNV
DYFV
DRH
DGH
DBH
DRV
DBV
DGV
FILTER AND OUTPUT AMPLIFIER
PIN AND KEY PRE-CORRECTION
GRID PATTERN INSERTING
SUPPLY WATCH DOG
IA10 TL082CD
IG11 TL082CD
IB12 TL082CD
RV
GV
BV
RH
GH
BH
CONVERGENCE POWER AMPLIFIER
DEFLECTION SPLITTER
S&H PULSE FORMER
CONTRAST REDUCING BEAM - SPOT - LIMITER
BLUE clip
Peak current
ICC19 CHASSIS MAIN BOARD
TXT MODULE
to Convergence deflection coil
RHR (3-BR01) 10ms 1Vpp-V
RHR (3-BR01) 32µs 1Vpp-H
RHD (4-BR01) 10ms 50Vpp-V
RVR (1-BR01) 10ms 2.2Vpp-V

Note : The form of signals D R/G/B, RV, RH,GH,GV,BH and BV is given for information only. They may vary with the convergence settings and the synchronisation of the oscilloscope.

Note : La forme des signaux D R/G/B, RV,RH,GH,GV,BH et BV est donnée à titre indicatif. Elle peut varier avec les réglages de convergence et la synchronisation de l'oscilloscope.

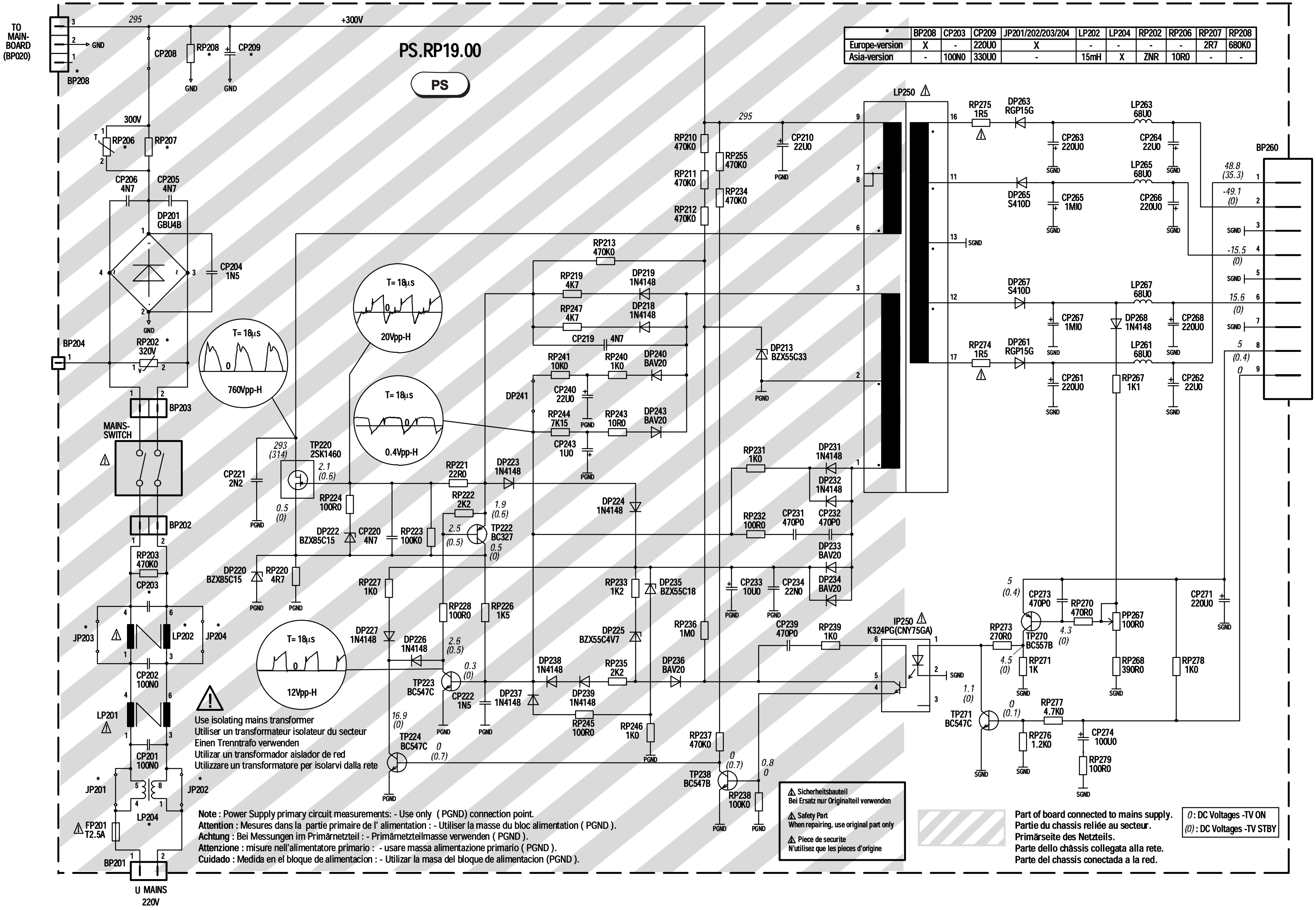
Hinweis : Die Form der Signale D R/G/B, RV, RH, GH, BH und BV ist nur informativ. Sie können je nach Einstellung der Konvergenz und der Synchronisation des Oszilloskops abweichen.

Nota : La forma dei segnali D R/G/B, RV, RH, GH, GV, BH e BV viene fornita solo a titolo indicativo. La forma può variare in base alle regolazioni di convergenza e alla sincronizzazione dell'oscilloscopio.

Nota : La forma de las señales D R/G/B, RV, RH, GH, GV, BH Y BV se facilita únicamente para información. Puede diferir con los parámetros de convergencia y la sincronización del osciloscopio.

RP C19

DIGITAL CONVERGENCE UNIT POWER SUPPLY - ALIMENTATION PLATINE DE CONVERGENCES NUMERIQUES - DIGITAL CONVERGENCE UNIT NETZTEIL - ALIMENTAZIONE CONVERGENZA DIGITALE - ALIMENTACIÓN DE LA UNIDAD DE CONVERGENCIA DIGITAL


PS.RP19.00
PS
TO MAIN-BOARD (BP020)
BP208
GND
+300V
295
CP208
RP208
CP209
300V
RP206
RP207
CP206 4N7
CP205 4N7
DP201 GBU4B
CP204 1N5
BP204
RP202 320V
BP203
MAINS-SWITCH
BP202
RP203 470K0
CP203
JP203
LP202
JP204
CP202 100N0
LP201
CP201 100N0
JP201
JP202
LP204
FP201 T2.5A
BP201
U MAINS 220V
T= 18µs
760Vpp-H
20Vpp-H
0.4Vpp-H
12Vpp-H
CP221 2N2
293 (314)
TP220 2SK1460
2.1 (0.6)
0.5 (0)
RP224 100R0
DP222 BZX85C15
CP220 4N7
RP223 100K0
DP220 BZX85C15
RP220 4R7
RP221 22R0
DP223 1N4148
RP222 2K2
1.9 (0.6)
2.5 (0.5)
TP222 BC327
0.5 (0)
RP227 1K0
RP228 100R0
RP226 1K5
DP227 1N4148
DP226 1N4148
2.6 (0.5)
0.3 (0)
TP223 BC547C
CP222 1N5
DP237 1N4148
16.9 (0)
TP224 BC547C
0 (0.7)
PGND
RP210 470K0
RP211 470K0
RP212 470K0
RP255 470K0
RP234 470K0
CP210 22U0
RP213 470K0
RP219 4K7
DP219 1N4148
RP247 4K7
DP218 1N4148
CP219 4N7
DP213 BZX55C33
RP241 10K0
RP240 1K0
DP240 BAV20
DP241
CP240 22U0
RP244 7K15
RP243 10R0
DP243 BAV20
CP243 1U0
DP224 1N4148
RP233 1K2
DP235 BZX55C18
DP225 BZX55C4V7
DP238 1N4148
RP235 2K2
DP236 BAV20
DP239 1N4148
RP245 100R0
RP246 1K0
RP236 1M0
RP237 470K0
TP238 BC547B
0 (0.7)
0.8 0
RP238 100K0
RP231 1K0
DP231 1N4148
DP232 1N4148
RP232 100R0
CP231 470P0
CP232 470P0
DP233 BAV20
DP234 BAV20
CP233 10U0
CP234 22N0
CP239 470P0
RP239 1K0
IP250 K324PG(CNY75GA)
SGND
LP250
RP275 1R5
DP263 RGP15G
LP263 68U0
CP263 220U0
CP264 22U0
LP265 68U0
DP265 S410D
CP265 1MI0
CP266 220U0
DP267 S410D
LP267 68U0
CP267 1MI0
DP268 1N4148
CP268 220U0
RP274 1R5
DP261 RGP15G
LP261 68U0
CP261 220U0
RP267 1K1
CP262 22U0
BP260
48.8 (35.3)
-49.1 (0)
-15.5 (0)
15.6 (0)
5 (0.4)
0
+49V
-49V
-15V
+15V
+5V
DCU_SAFE
TO DCU BOARD (BK04)
5 (0.4)
CP273 470P0
RP270 470R0
PP267 100R0
RP273 270R0
TP270 BC557B
4.3 (0)
4.5 (0)
RP271 1K
RP268 390R0
RP278 1K0
CP271 220U0
1.1 (0)
0 (0.1)
TP271 BC547C
RP277 4.7K0
RP276 1.2K0
CP274 100U0
RP279 100R0

*	BP208	CP203	CP209	JP201/202/203/204	LP202	LP204	RP202	RP206	RP207	RP208
Europe-version	X	-	220U0	X	-	-	-	-	2R7	680K0
Asia-version	-	100N0	330U0	-	15mH	X	ZNR	10R0	-	-

⚠

Use isolating mains transformer
Utiliser un transformateur isolateur du secteur
Einen Trenntrafo verwenden
Utilizar un transformador aislador de red
Utilizzare un transformatore per isolarvi dalla rete

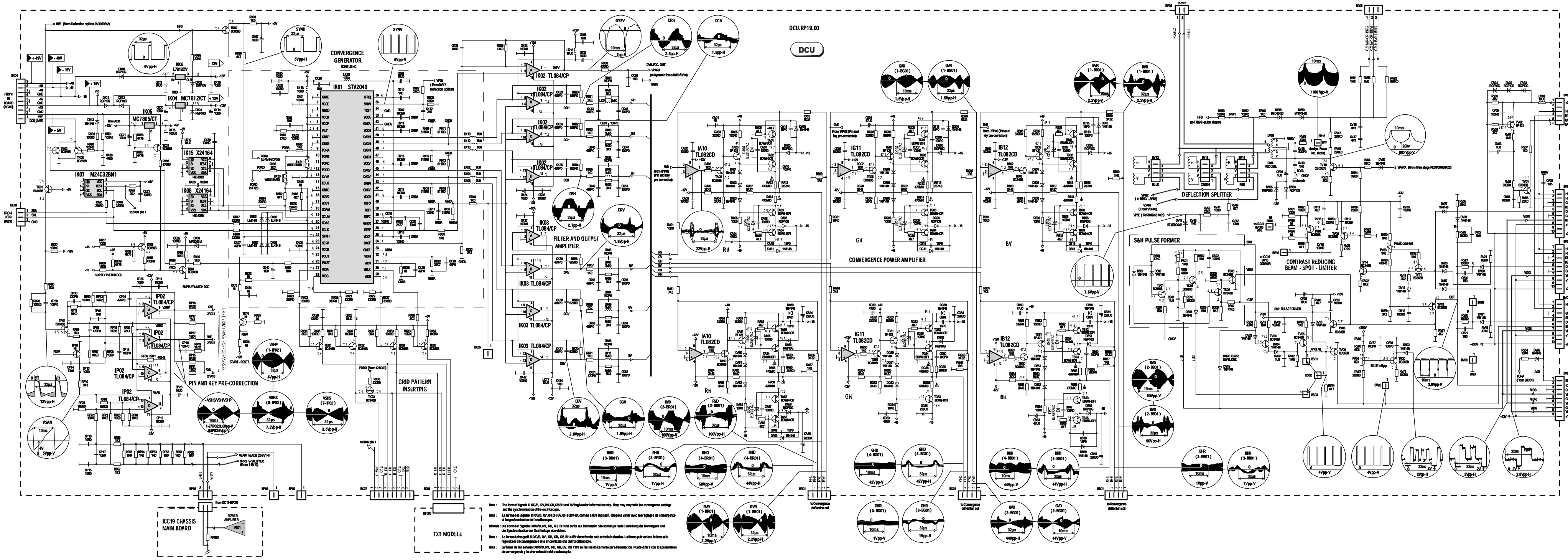
Note : Power Supply primary circuit measurements: - Use only (PGND) connection point.
Attention : Mesures dans la partie primaire de l' alimentation : - Utiliser la masse du bloc alimentation (PGND).
Achtung : Bei Messungen im Primärnetzteil : - Primärnetzteilmasse verwenden (PGND).
Attenzione : misure nell'alimentatore primario : - usare massa alimentazione primario (PGND).
Cuidado : Medida en el bloque de alimentacion : - Utilizar la masa del bloque de alimentacion (PGND).

⚠ Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
⚠ Safety Part
When repairing, use original part only
⚠ Piece de securite
N'utilisez que les pieces d'origine

▨ Part of board connected to mains supply.
Partie du chassis reliée au secteur.
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectada a la red.

0 : DC Voltages -TV ON
(0) : DC Voltages -TV STBY

DIGITAL CONVERGENCE UNIT - PLATINE DE CONVERGENCES NUMERIQUES - DIGITALE KONVERGENZ EINHEIT - UNITÀ DI CONVERGENZA DIGITALE - UNIDAD DE CONVERGENCIA DIGITAL


DCU.RP19.00
DCU
CONVERGENCE GENERATOR
IK01 STV2040
IK02 TL084/CP
IK03 TL084/CP
FILTER AND OUTPUT AMPLIFIER
IK04 MC7812/CT
IK05 MC7805/CT
IK06 L7912CV
IK07 M24C32BN1
IK08 X24164
IK15 X24164
IP02 TL084/CP
PIN AND KEY PRE-CORRECTION
GRID PATTERN INSERTING
IA10 TL082CD
IG11 TL082CD
IB12 TL082CD
RV
GV
BV
RH
GH
BH
CONVERGENCE POWER AMPLIFIER
DEFLECTION SPLITTER
S&H PULSE FORMER
CONTRAST REDUCING BEAM - SPOT - LIMITER
Peak current
BLUE clip
ICC19 CHASSIS MAIN BOARD
TXT MODULE
to Convergence deflection coil
SYNH
SYNV
DYFV
DRH
DCH
DBH
DRV
DBV
DGV
VSHP
VSHS
VSAN
RHR
RHD
RVR
RVD
GHR
GHD
GVR
GVD
BHR
BHD
BVR
BVD
10ms
32µs

Note : The form of signals D R/G/B, RV,RH, GH,GV,BH and BV is given for information only. They may vary with the convergence settings and the synchronisation of the oscilloscope.

Note : La forme des signaux DR/G/B, RV,RH,GH,GV,BH et BV est donnée à titre indicatif. Elle peut varier avec les réglages de convergence et la synchronisation de l'oscilloscope.

Hinweis : Die Form der Signale DR/G/B, RV, RH, GH, BH und BV ist nur informativ. Sie können je nach Einstellung der Konvergenz und der Synchronisation des Oszilloskops abweichen.

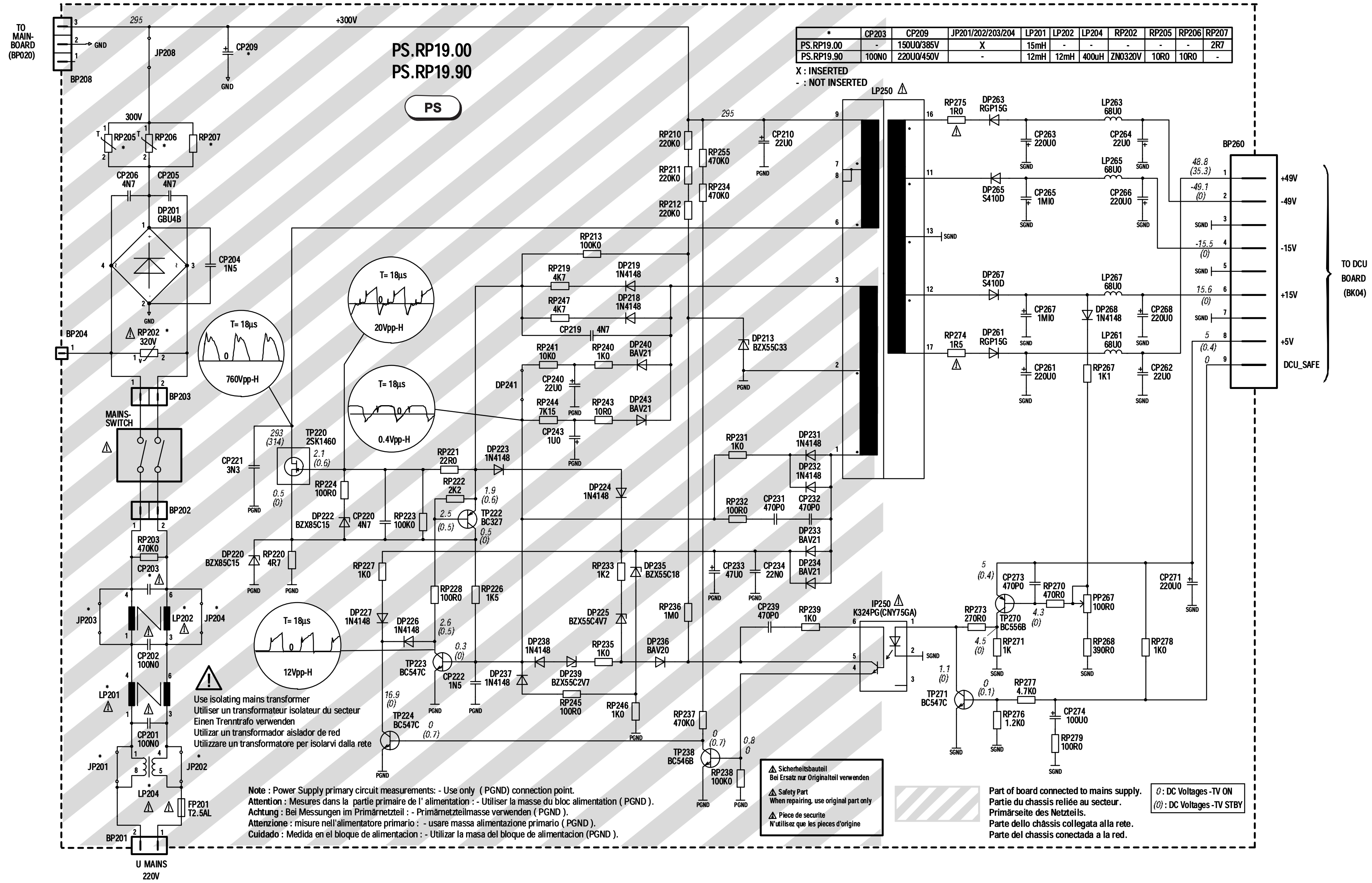
Nota : La forma dei segnali DR/G/B, RV, RH, GH, GV, BH e BV viene fornita solo a titolo indicativo. La forma può variare in base alle regolazioni di convergenza e alla sincronizzazione dell'oscilloscopio.

Nota : La forma de las señales DR/G/B, RV, RH, GH, GV, BH Y BV se facilita únicamente para información. Puede diferir con los parámetros de convergencia y la sincronización del osciloscopio.

Updated 07 / 99

RP C19
First issue 07 / 98

DIGITAL CONVERGENCE UNIT POWER SUPPLY - ALIMENTATION PLATINE DE CONVERGENCES NUMERIQUES - DIGITAL CONVERGENCE UNIT NETZTEIL - ALIMENTAZIONE CONVERGENZA DIGITALE - ALIMENTACIÓN DE LA UNIDAD DE CONVERGENCIA DIGITAL


TO MAIN-BOARD (BP020)
BP208
GND
295
+300V
JP208
CP209
PS.RP19.00
PS.RP19.90
PS
300V
RP205
RP206
RP207
CP206 4N7
CP205 4N7
DP201 GBU4B
CP204 1N5
BP204
RP202 320V
BP203
MAINS-SWITCH
BP202
RP203 470K0
CP203
JP203
LP202
JP204
CP202 100N0
LP201
CP201 100N0
JP201
JP202
LP204
FP201 T2.5AL
BP201
U MAINS 220V
T= 18µs
760Vpp-H
20Vpp-H
0.4Vpp-H
12Vpp-H
TP220 2SK1460
293 (314)
2.1 (0.6)
CP221 3N3
RP224 100R0
DP222 BZX85C15
CP220 4N7
RP223 100K0
DP220 BZX85C15
RP220 4R7
RP221 22R0
RP222 2K2
DP223 1N4148
TP222 BC327
RP227 1K0
RP228 100R0
RP226 1K5
DP227 1N4148
DP226 1N4148
TP223 BC547C
CP222 1N5
TP224 BC547C
DP241
RP213 100K0
RP219 4K7
DP219 1N4148
RP247 4K7
DP218 1N4148
CP219 4N7
RP241 10K0
RP240 1K0
DP240 BAV21
CP240 22U0
RP244 7K15
RP243 10R0
DP243 BAV21
CP243 1U0
DP224 1N4148
RP233 1K2
DP235 BZX55C18
DP225 BZX55C4V7
DP238 1N4148
RP235 1K0
DP236 BAV20
DP237 1N4148
DP239 BZX55C2V7
RP245 100R0
RP246 1K0
RP210 220K0
RP211 220K0
RP212 220K0
RP255 470K0
RP234 470K0
CP210 22U0
DP213 BZX55C33
RP231 1K0
DP231 1N4148
DP232 1N4148
RP232 100R0
CP231 470P0
CP232 470P0
DP233 BAV21
DP234 BAV21
CP233 47U0
CP234 22N0
RP236 1M0
CP239 470P0
RP239 1K0
RP237 470K0
TP238 BC546B
RP238 100K0
IP250 K324PG(CNY75GA)
LP250
RP275 1R0
DP263 RGP15G
LP263 68U0
CP263 220U0
CP264 22U0
DP265 S410D
LP265 68U0
CP265 1MI0
CP266 220U0
DP267 S410D
LP267 68U0
CP267 1MI0
DP268 1N4148
CP268 220U0
RP274 1R5
DP261 RGP15G
LP261 68U0
CP261 220U0
RP267 1K1
CP262 22U0
BP260
48.8 (35.3)
-49.1 (0)
-15.5 (0)
15.6 (0)
5 (0.4)
+49V
-49V
-15V
+15V
+5V
DCU_SAFE
TO DCU BOARD (BK04)
CP273 470P0
RP270 470R0
PP267 100R0
TP270 BC556B
RP273 270R0
RP271 1K
RP268 390R0
RP278 1K0
CP271 220U0
TP271 BC547C
RP277 4.7K0
RP276 1.2K0
CP274 100U0
RP279 100R0
PGND
SGND

*	CP203	CP209	JP201/202/203/204	LP201	LP202	LP204	RP202	RP205	RP206	RP207
PS.RP19.00	-	150U0/385V	X	15mH	-	-	-	-	-	2R7
PS.RP19.90	100N0	220U0/450V	-	12mH	12mH	400uH	ZN0320V	10R0	10R0	-

X : INSERTED
- : NOT INSERTED

⚠ Use isolating mains transformer
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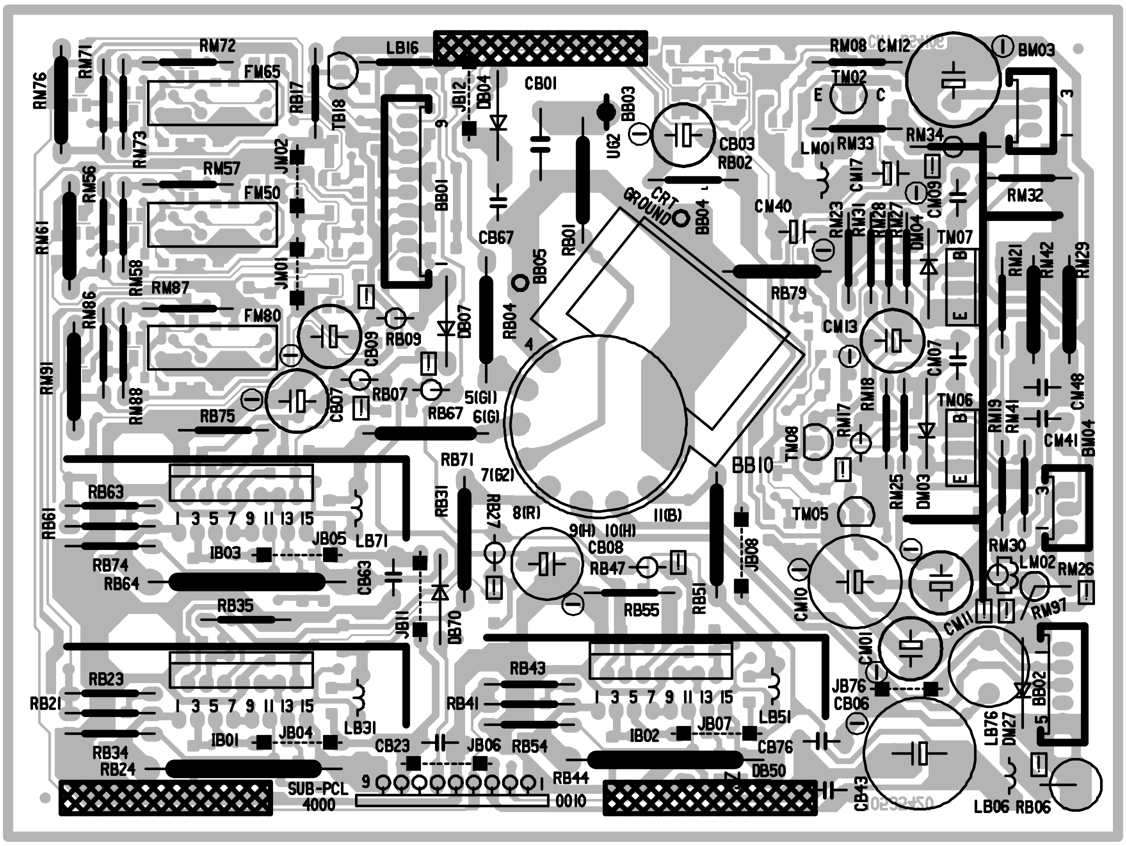
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectada a la red.

0 : DC Voltages -TV ON
(0) : DC Voltages -TV STBY

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO

CRT BS19100

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES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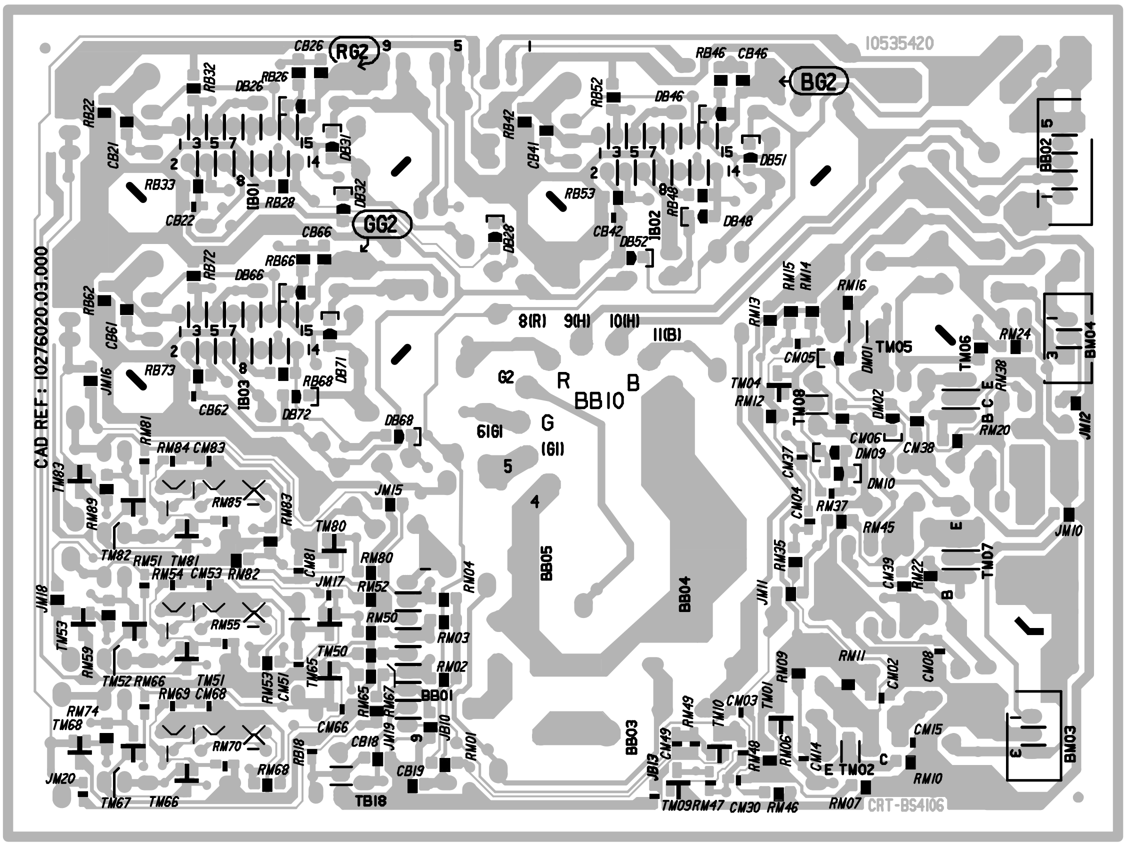
RM71
RM76
FM65
RB17
TB18
LB16
JB12
DB04
CB01
BB03
U62
CB03
RB02
RM08
CM12
BM03
TM02
E
C
RM33
RM34
LM01
CM17
CM09
RM32
JM02
RM57
RM56
FM50
RM73
RM61
BB01
CB67
CRT GROUND
BB04
RB01
BB05
CM40
RM23
RM31
RM28
RM27
DM04
TM07
RM21
RM42
RM29
JM01
RM58
RM87
FM80
RM86
DB07
RB04
RB79
CM13
CM07
CM48
RM91
RM88
CB09
RB09
CB07
RB07
RB67
5(G1)
6(G)
4
RM18
RM17
TM08
TM06
RM19
RM41
CM41
BM04
RB75
RB71
7(G2)
BB10
RB63
RB61
RB31
RB27
8(R)
9(H)
10(H)
11(B)
RM25
DM03
TM05
RB74
IB03
JB05
LB71
CB08
RB47
JB08
RM30
LM02
RM26
RB64
CB63
RB51
CM10
RB35
JB11
DB70
RB55
CM11
RM97
CM01
RB23
RB43
JB76
CB06
RB21
LB31
RB41
LB51
BB02
RB34
IB01
JB04
CB23
JB06
RB54
IB02
JB07
CB76
LB76
DM27
RB24
RB44
DB50
CB43
SUB-PCL 4000
0010
LB06
RB06
1 3 5 7 9 11 13 15

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS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RG2
I0535420
RB46
CB46
BG2
RB32
DB26
RB26
RB22
RB52
DB46
RB42
CB21
DB31
CB41
DB51
RB33
IB01
RB28
DB32
RB53
RB48
IB02
DB48
CB22
CB66
GG2
DB28
CB42
DB52
RB72
RB66
DB66
RM15
RM14
RM16
RB62
RM13
CB61
DB71
8(R)
9(H)
10(H)
11(B)
TM05
TM06
RM24
BM04
JM16
RB73
RB68
DM01
CM05
TM04
RM38
CB62
IB03
DB72
G2
R
B
BB10
RM12
TM08
DM02
CM06
CM38
RM20
JM12
DB68
6(G)
G
(G1)
DM09
DM10
CAD REF : 10276020.03.000
RM81
RM84
CM83
TM83
5
CM37
RM89
RM85
RM83
JM15
4
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RM37
RM45
JM10
TM80
TM82
RM51
TM81
RM54
CM53
RM82
CM81
RM80
RM04
BB05
RM35
CM39
RM22
TM07
JM17
RM52
BB04
JM11
JM18
RM55
RM50
RM03
TM53
RM59
TM50
TM65
RM53
CM51
RM02
RM09
RM11
CM02
CM08
TM52
RM66
TM51
RM69
CM68
RM65
RM67
BB01
RM74
TM68
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CM49
RM49
TM10
CM03
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CM15
BM03
RM70
RB18
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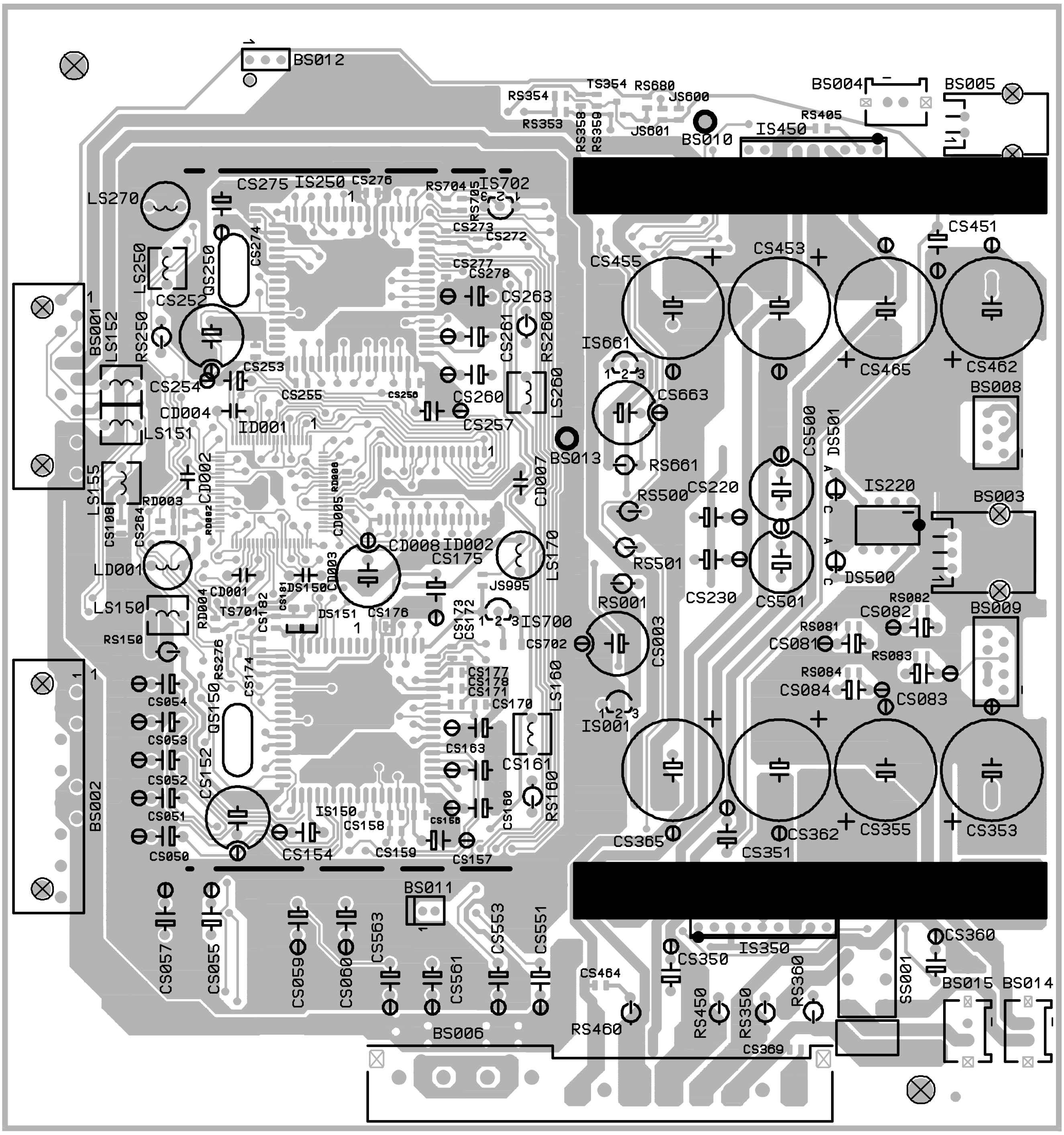
CB19
JB13
RM48
RM06
CM14
E TM02
C
RM10
JM20
TM67
TM66
TB18
TM09
RM47
CM30
RM46
RM07
CRT-BS4106

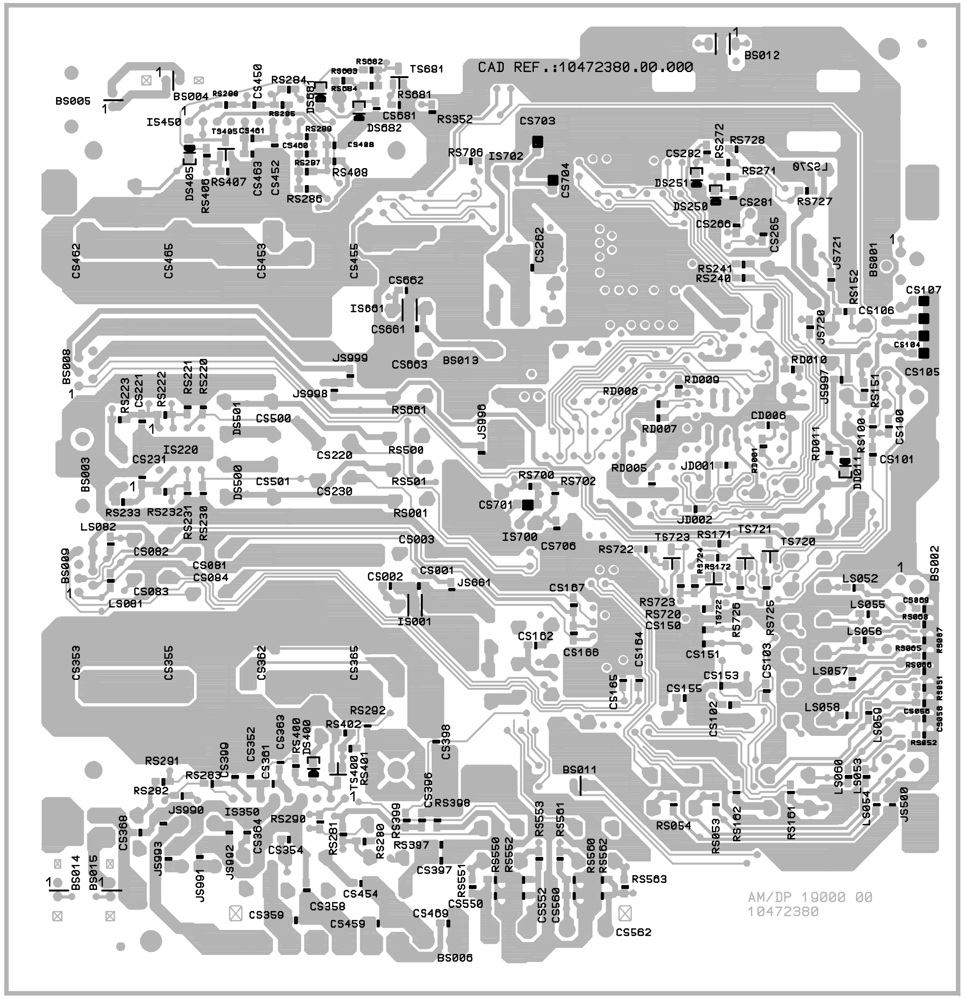
AUDIO SIGNAL/DOLBY MODULE - MODULE AUDIO/DOLBY - TON SIGNAL/DOLBY BAUSTEIN - MODULO AUDIO/DOLBY - MÓDULO AUDIO/DOLBY

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE LATO COMPONENTI - LADO COMPONENTES


BS012
RS354
TS354
RS680
JS600
BS004
BS005
RS353
RS358
RS359
JS601
BS010
RS405
IS450
CS275
IS250
CS276
RS704
RS705
IS702
LS270
CS273
CS272
CS274
QS250
LS250
CS277
CS278
CS263
CS455
CS453
CS451
CS252
BS001
LS152
RS250
CS261
RS260
IS661
CS465
CS462
CS253
CS254
CS255
CS258
CS260
LS260
CS663
BS008
CD004
ID001
CS257
CS500
DS501
LS151
BS013
RS661
LS155
CD002
RD006
CD007
RS500
CS220
IS220
BS003
CS108
RD003
RD002
CD005
CS264
CD008
ID002
LS170
LD001
CD003
CS175
RS501
DS500
JS995
CS230
CS501
LS150
RD004
CD001
CS181
DS150
TS701
CS182
RS001
RS092
CS082
BS009
DS151
CS176
CS173
CS172
IS700
CS003
RS081
RS150
CS702
CS081
RS083
RS276
CS174
CS177
CS178
CS171
LS160
RS084
CS084
CS083
CS054
CS170
IS001
QS150
CS053
CS163
CS152
CS161
BS002
CS052
CS160
RS160
CS051
IS150
CS158
CS150
CS365
CS362
CS355
CS353
CS050
CS154
CS159
CS157
CS351
BS011
CS360
CS057
CS055
CS059
CS060
CS563
CS561
CS553
CS551
CS464
CS350
IS350
SS001
BS015
BS014
RS450
RS350
RS360
RS460
BS006
CS369

AUDIO SIGNAL/DOLBY MODULE - MODULE AUDIO/DOLBY - TON SIGNAL/DOLBY BAUSTEIN - MODULO AUDIO/DOLBY - MÓDULO AUDIO/DOLBY

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS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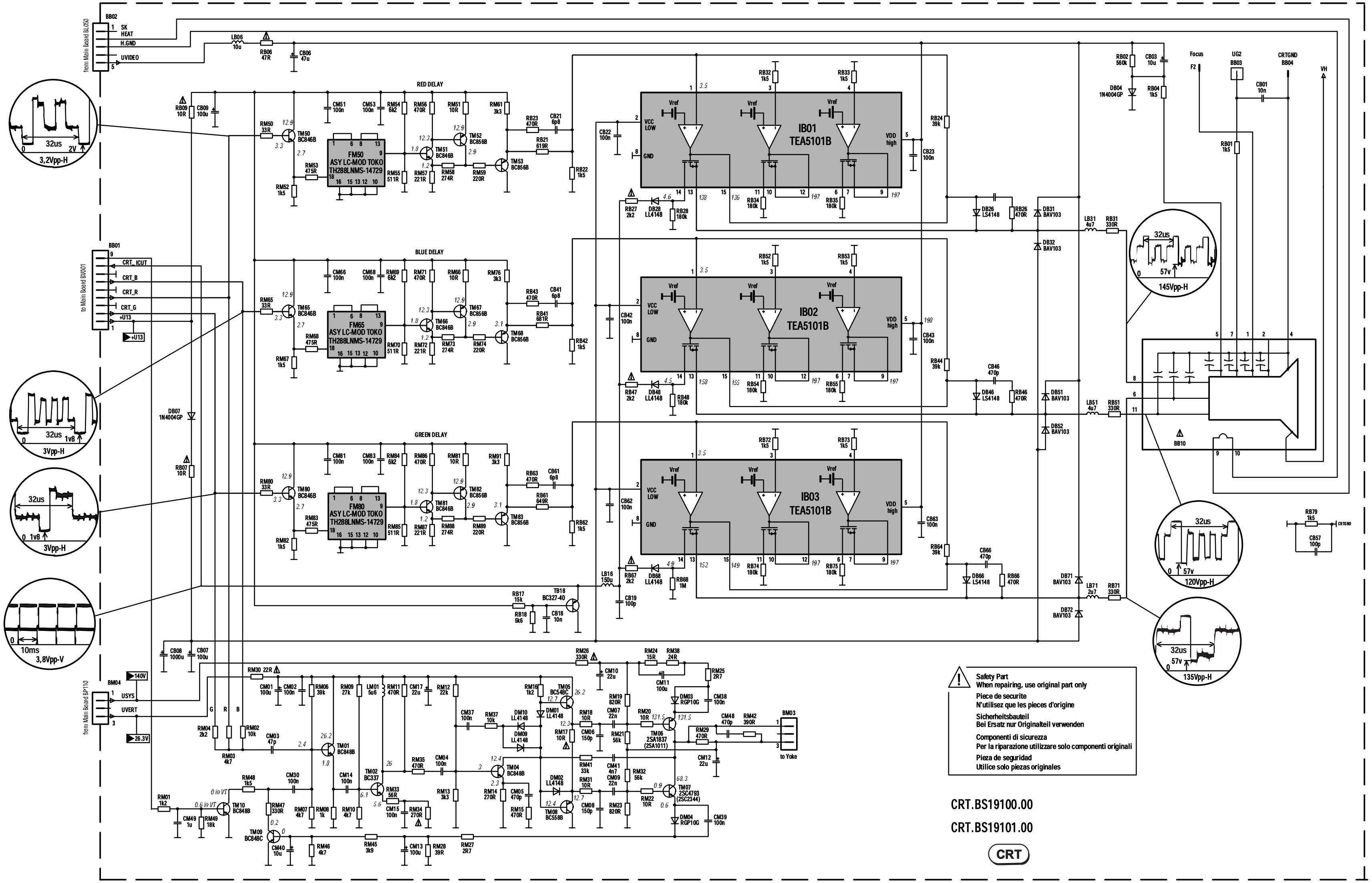
BS012
BS005
BS004
IS450
CS450
RS284
DS601
TS601
RS601
CS601
DS602
RS352
CS703
IS702
RS706
CS704
CS282
RS272
RS728
RS271
LS270
DS251
DS250
CS281
RS727
CS280
CS265
CS262
RS241
RS240
JS721
BS001
RS152
CS107
CS106
CS104
CS105
JS720
RD010
JS997
RS151
CS100
RS100
RD011
CS101
DD011
CS462
CS405
CS453
CS455
CS662
IS601
CS661
JS999
CS603
BS013
DS405
RS406
RS407
CS403
CS452
RS408
RS286
BS008
RS223
CS221
RS222
RS221
RS220
JS998
DS501
CS500
RS601
JS996
RD008
RD009
CD006
RD007
RD005
JD001
IS220
CS231
BS003
CS220
RS500
DS500
CS501
CS230
RS501
RS700
RS702
CS701
RS001
JD002
RS233
RS232
RS231
RS230
LS002
CS003
IS700
CS706
RS722
TS723
RS171
TS721
TS720
BS009
CS002
CS001
CS004
CS083
LS001
JS001
IS001
CS167
CS162
CS166
CS164
RS723
RS720
CS150
CS151
RS726
RS725
CS153
CS103
CS155
CS165
CS102
LS052
LS055
LS056
LS057
LS058
LS050
BS002
CS353
CS355
CS362
CS365
RS292
RS402
CS398
RS291
RS283
CS300
CS352
CS351
CS363
RS400
DS400
TS400
RS401
RS282
CS396
RS398
BS011
JS990
IS350
RS290
CS360
CS364
CS354
RS281
RS280
RS399
RS397
CS397
RS553
RS561
RS550
RS552
RS551
CS550
CS552
CS560
RS560
RS562
RS563
RS054
RS053
RS102
RS101
LS060
LS053
LS054
JS500
BS014
BS015
JS993
JS991
JS992
CS359
CS358
CS454
CS459
CS469
BS006
CS562

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19100 - CRTBS19101


BB02
SK
HEAT
H.GND
UVIDEO
from Main Board BL050
LB06 10u
RB06 47R
CB06 47u
RB09 10R
CB09 10u
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
TM50 BC846B
TM51 BC846B
TM52 BC856B
TM53 BC856B
TM65 BC846B
TM66 BC846B
TM67 BC856B
TM68 BC856B
TM80 BC846B
TM81 BC846B
TM82 BC856B
TM83 BC856B
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
Vref
VCC LOW
VDD high
GND
32us
2V
3,2Vpp-H
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
to Main Board BV001
DB07 1N4004GP
RB07 10R
32us
1v8
3Vpp-H
32us
1v8
3Vpp-H
10ms
3,8Vpp-V
TB18 BC327-40
RB17 15k
RB18 5k6
CB18 10n
LB16 150u
CB19 100p
CB08 1000u
CB07 100u
BM04
140V
USYS
UVERT
26.3V
from Main Board BP110
G R B
TM01 BC848B
TM02 BC337
TM04 BC848B
TM05 BC548C
TM06 2SA1837 (2SA1011)
TM07 2SC4793 (2SC2344)
TM08 BC558B
TM09 BC848C
TM10 BC848B
DM01 LL4148
DM02 LL4148
DM03 RGP10G
DM04 RGP10G
DM09 LL4148
DM10 LL4148
LM01 5u6
BM03
to Yoke
RB02 560k
CB03 10u
DB04 1N4004GP
RB04 1k5
RB01 1k5
Focus
F2
UG2
BB03
CRTGND
BB04
CB01 10n
VH
LB31 4u7
RB31 330R
LB51 4u7
RB51 330R
LB71 2u7
RB71 330R
DB31 BAV103
DB32 BAV103
DB51 BAV103
DB52 BAV103
DB71 BAV103
DB72 BAV103
32us
57v
145Vpp-H
32us
57v
120Vpp-H
32us
57v
135Vpp-H
BB10
RB79 1k5
CB57 100p
CRTGND

Safety Part
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

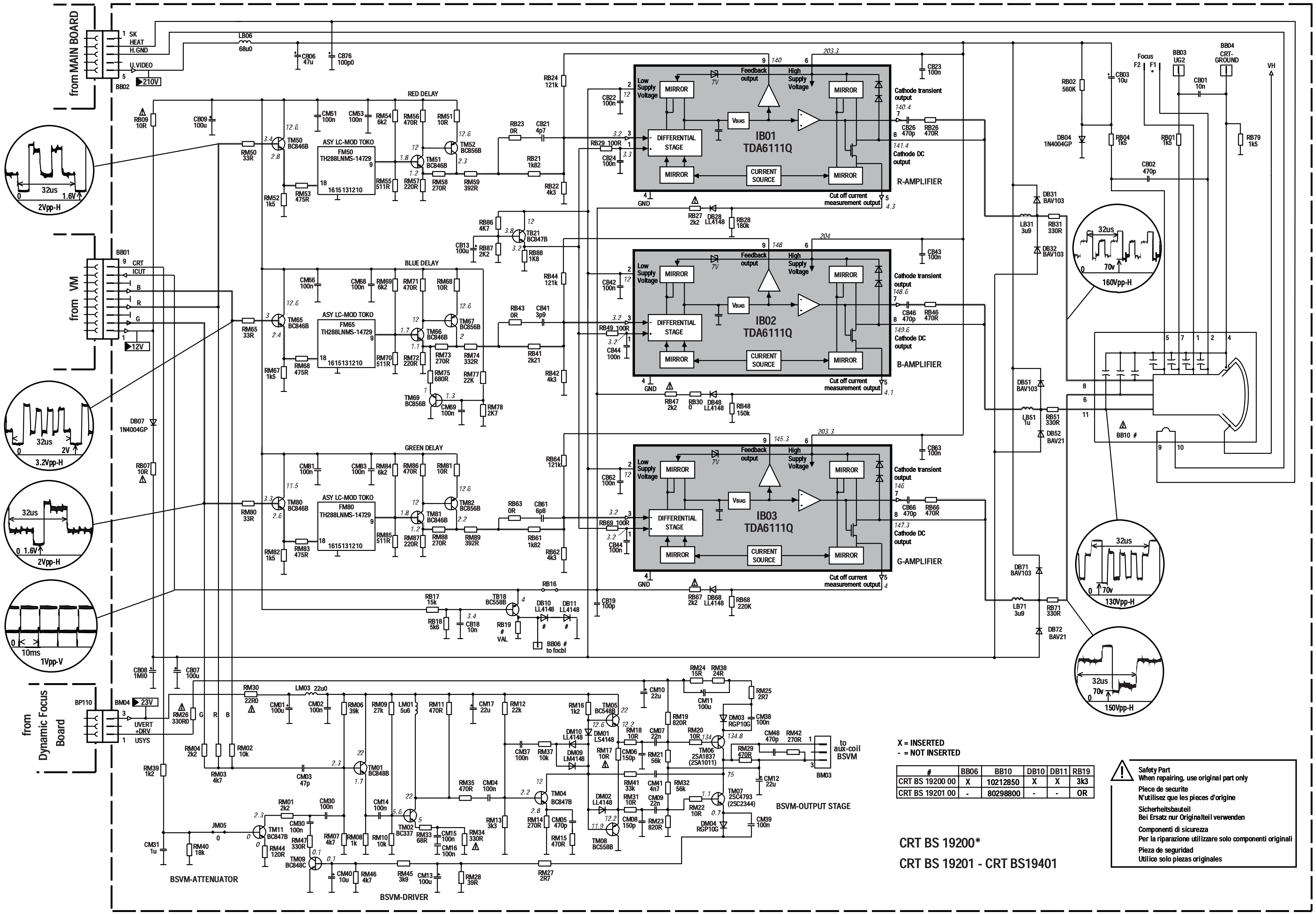
Pieza de seguridad
Utilice solo piezas originales

CRT.BS19100.00

CRT.BS19101.00

CRT

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS 19200 - CRTBS 19201 - CRTBS 19401


from MAIN BOARD
BB02
SK
HEAT
H.GND
U.VIDEO
210V
from VM
BB01
CRT
ICUT
B
R
G
12V
from Dynamic Focus Board
BP110
BM04
23V
UVERT
+DRV
USYS
RED DELAY
BLUE DELAY
GREEN DELAY
ASY LC-MOD TOKO
FM50
FM65
FM80
TH288LNMS-14729
1615131210
IB01
IB02
IB03
TDA6111Q
Low Supply Voltage
Feedback output
High Supply Voltage
MIRROR
DIFFERENTIAL STAGE
CURRENT SOURCE
VBIAS
Cathode transient output
Cathode DC output
Cut off current measurement output
GND
R-AMPLIFIER
B-AMPLIFIER
G-AMPLIFIER
Focus
F2
F1
BB03
UG2
BB04
CRT-GROUND
VH
BB10
BB06 to focbl
VAL
BM03
to aux-coil BSVM
BSVM-ATTENUATOR
BSVM-DRIVER
BSVM-OUTPUT STAGE
32us
1.6V
2Vpp-H
2V
3.2Vpp-H
10ms
1Vpp-V
70v
160Vpp-H
130Vpp-H
150Vpp-H

X = INSERTED
- = NOT INSERTED

#	BB06	BB10	DB10	DB11	RB19
CRT BS 19200 00	X	10212850	X	X	3k3
CRT BS 19201 00	-	80298800	-	-	OR

CRT BS 19200*

CRT BS 19201 - CRT BS19401

⚠ **Safety Part**
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

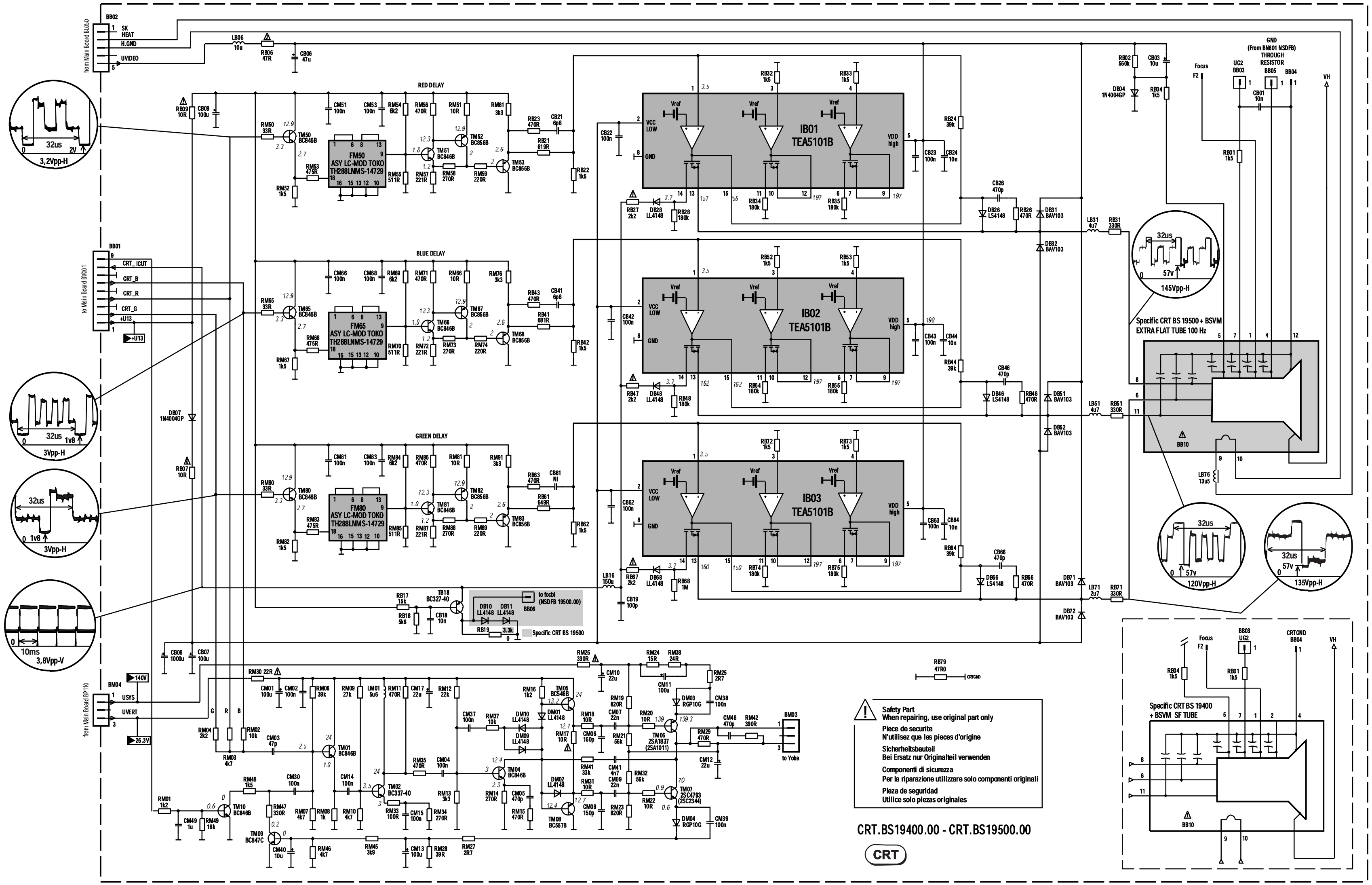
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

Pieza de seguridad
Utilice solo piezas originales

MC-Service

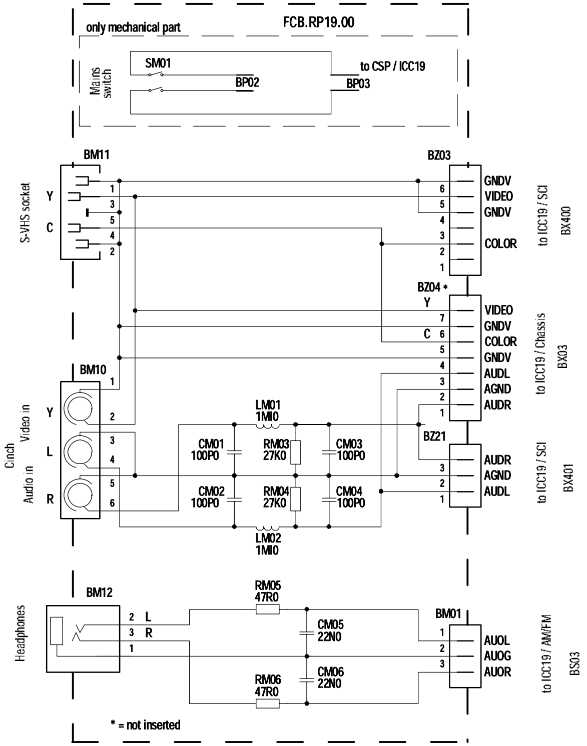
VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19400



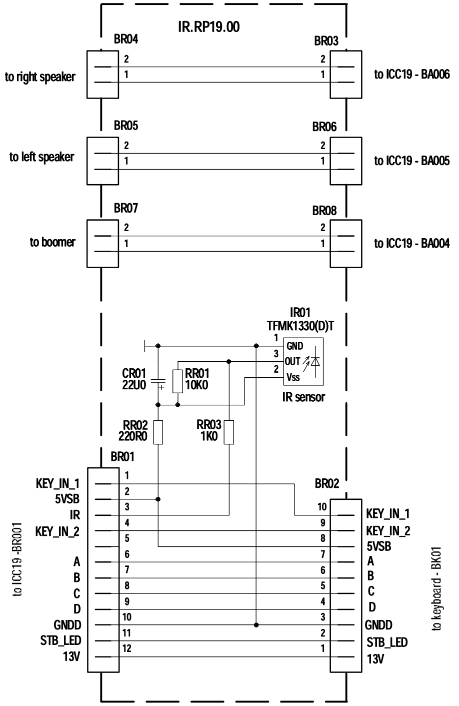
from Main Board BL050
to Main Board BV001
from Main Board BP110
BB02
SK HEAT
H.GND
UVIDEO
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
BM04
USYS
UVERT
140V
26.3V
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
VCC LOW
GND
VDD high
Vref
TB18 BC327-40
to focbl (NSDFB 19500.00)
BB06
Specific CRT BS 19500
BM03
to Yoke
Specific CRT BS 19500 + BSVM EXTRA FLAT TUBE 100 Hz
Specific CRT BS 19400 + BSVM SF TUBE
GND (From BN601 NSDFB) THROUGH RESISTOR
Focus F2
UG2 BB03
BB05
BB04
VH
CRTGND
BB10
32us
2V
3,2Vpp-H
1v8
3Vpp-H
10ms
3,8Vpp-V
57v
145Vpp-H
120Vpp-H
135Vpp-H
CRT.BS19400.00 - CRT.BS19500.00
CRT

Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

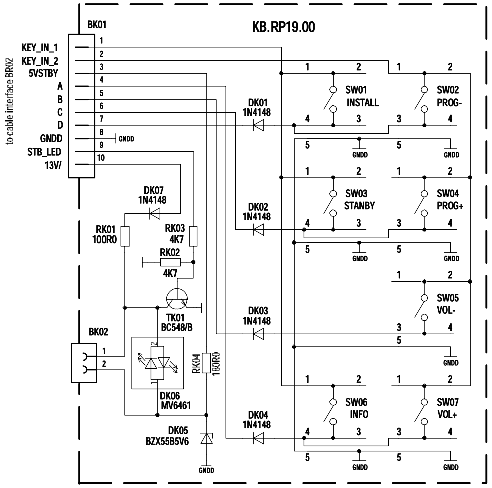
FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL


FCB.RP19.00
only mechanical part
Mains switch
SM01
BP02
BP03
to CSP / ICC19
BM11
S-VHS socket
Y
C
BZ03
GNDV
VIDEO
GNDV
COLOR
to ICC19 / SCI
BX400
BZ04 *
VIDEO
GNDV
COLOR
GNDV
AUDL
AGND
AUDR
to ICC19 / Chassis
BX03
BM10
Cinch
Video in
Audio in
Y
L
R
LM01 1MI0
CM01 100P0
RM03 27K0
CM03 100P0
CM02 100P0
RM04 27K0
CM04 100P0
LM02 1MI0
BZ21
AUDR
AGND
AUDL
to ICC19 / SCI
BX401
BM12
Headphones
L
R
RM05 47R0
CM05 22N0
RM06 47R0
CM06 22N0
BM01
AUOL
AUOG
AUOR
to ICC19 / AM/FM
BS03
* = not inserted

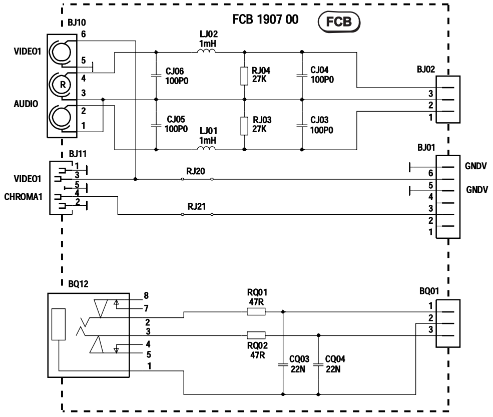
IR RECEIVER P.C.B. - PLATINE RECEPTEUR INFRA-ROUGE - IR EMPFÄNGER LTPL. PIASTRA RICEVITORE IR - PLATINA RECEPTOR IR


IR.RP19.00
BR04
to right speaker
BR03
to ICC19 - BA006
BR05
to left speaker
BR06
to ICC19 - BA005
BR07
to boomer
BR08
to ICC19 - BA004
IR01
TFMK1330(D)T
GND
OUT
Vss
IR sensor
CR01 22U0
RR01 10K0
RR02 220R0
RR03 1K0
BR01
KEY_IN_1
5VSB
IR
KEY_IN_2
A
B
C
D
GNDD
STB_LED
13V
to ICC19 -BR001
BR02
KEY_IN_1
KEY_IN_2
5VSB
A
B
C
D
GNDD
STB_LED
13V
to keyboard - BK01

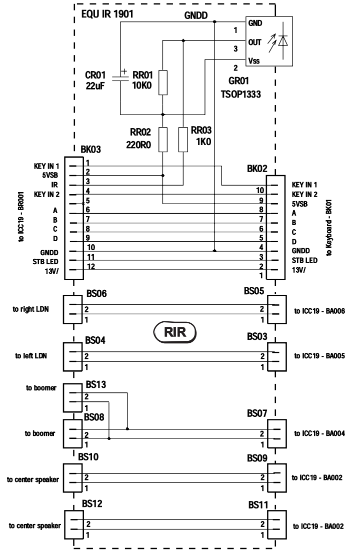
KEYBOARD MODULE - PLATINE CLAVIER - TASTATURPLATTE - PIASTRA COMANDI - PLATINA TECLADO


KB.RP19.00
BK01
to cable interface BR02
KEY_IN_1
KEY_IN_2
5VSTBY
A
B
C
D
GNDD
STB_LED
13V/
GNDD
SW01 INSTALL
SW02 PROG-
SW03 STANBY
SW04 PROG+
SW05 VOL-
SW06 INFO
SW07 VOL+
DK01 1N4148
DK02 1N4148
DK03 1N4148
DK04 1N4148
DK07 1N4148
RK01 100R0
RK03 4K7
RK02 4K7
TK01 BC548/B
BK02
DK06 MV6461
RK04 180R0
DK05 BZX55B5V6
GNDD

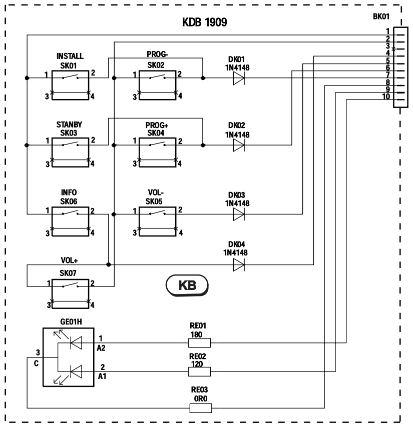
FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL


FCB 1907 00
FCB
BJ10
VIDEO1
AUDIO
R
LJ02 1mH
LJ01 1mH
CJ06 100P0
CJ05 100P0
RJ04 27K
RJ03 27K
CJ04 100P0
CJ03 100P0
BJ02
BJ11
BJ01
VIDEO1
CHROMA1
RJ20
RJ21
GNDV
GNDV
BQ12
RQ01 47R
RQ02 47R
CQ03 22N
CQ04 22N
BQ01

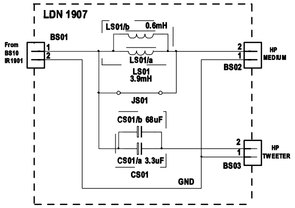
IR RECEIVER P.C.B. - PLATINE RECEPTEUR INFRA-ROUGE - IR EMPFÄNGER LTPL. PIASTRA RICEVITORE IR - PLATINA RECEPTOR IR


EQU IR 1901
GNDD
GND
OUT
Vss
GR01 TSOP1333
CR01 22uF
RR01 10K0
RR02 220R0
RR03 1K0
BK03
BK02
KEY IN 1
5VSB
IR
KEY IN 2
A
B
C
D
GNDD
STB LED
13V/
to ICC19 - BR001
to Keyboard - BK01
RIR
BS06
BS05
BS04
BS03
BS13
BS08
BS07
BS10
BS09
BS12
BS11
to right LDN
to left LDN
to boomer
to boomer
to center speaker
to center speaker
to ICC19 - BA006
to ICC19 - BA005
to ICC19 - BA004
to ICC19 - BA002
to ICC19 - BA002

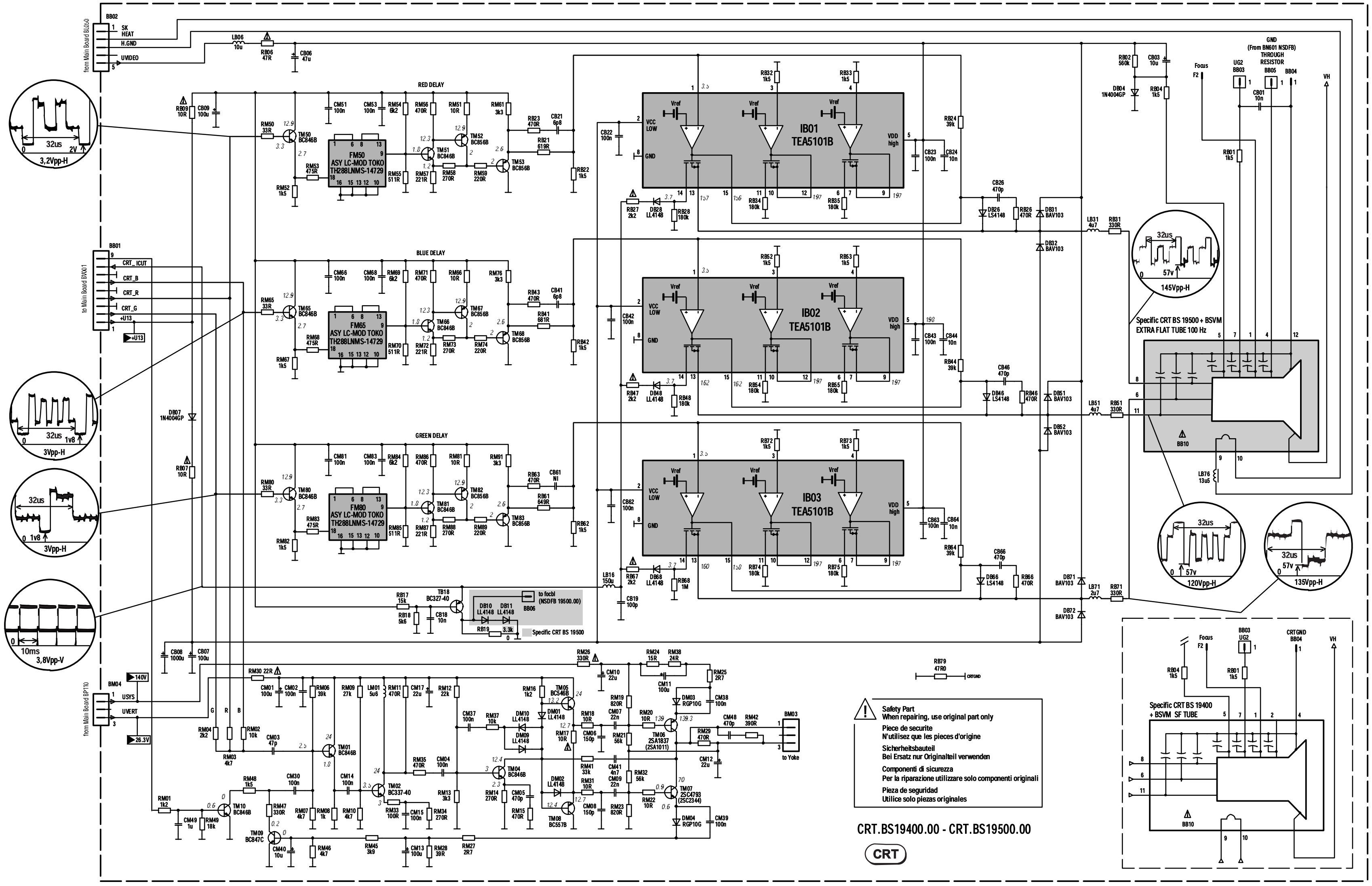
KEYBOARD MODULE - PLATINE CLAVIER - TASTATURPLATTE - PIASTRA COMANDI - PLATINA TECLADO


KDB 1909
BK01
INSTALL SK01
PROG- SK02
DK01 1N4148
STANBY SK03
PROG+ SK04
DK02 1N4148
INFO SK06
VOL- SK05
DK03 1N4148
DK04 1N4148
VOL+ SK07
KB
GE01H
A2
A1
C
RE01 180
RE02 120
RE03 0R0

LDN 1907


LDN 1907
BS01
From BS10 IR1901
LS01/b 0.6mH
LS01/a
LS01 3.9mH
JS01
CS01/b 68uF
CS01/a 3.3uF
CS01
GND
BS02
HP MEDIUM
BS03
HP TWEETER

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRT BS19400 - CRT BS19500



BB02
SK HEAT
H.GND
UVIDEO
from Main Board BL0x0
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
to Main Board BN001
BM04
USYS
UVERT
from Main Board BP110
140V
26.3V
to focbl (NSDFB 19500.00)
BB06
Specific CRT BS 19500
BM03
to Yoke
32us
2V
3,2Vpp-H
1v8
3Vpp-H
3Vpp-H
10ms
3,8Vpp-V
57v
145Vpp-H
120Vpp-H
135Vpp-H
Specific CRT BS 19500 + BSVM EXTRA FLAT TUBE 100 Hz
Specific CRT BS 19400 + BSVM SF TUBE
GND (From BN601 NSDFB) THROUGH RESISTOR
Focus F2
UG2
CRTGND
VH
BB10
RB79 47R0

Safety Part
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

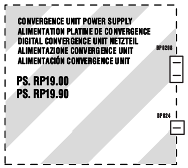
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

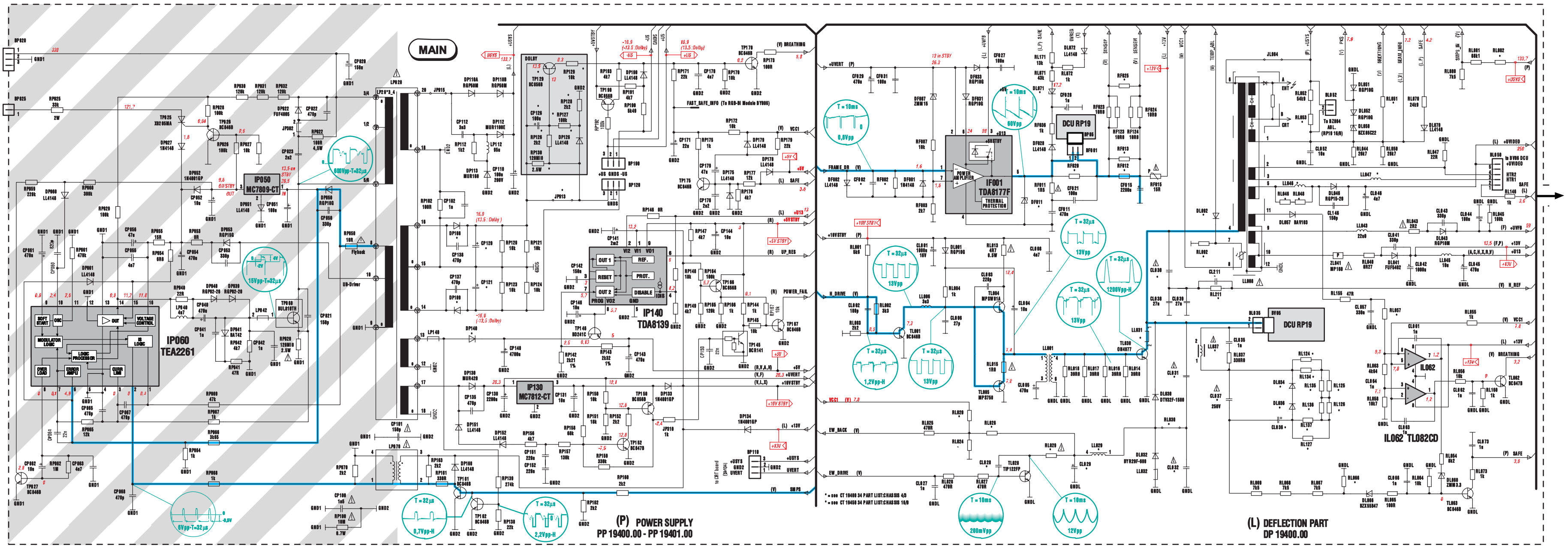
Pieza de seguridad
Utilice solo piezas originales

CRT.BS19400.00 - CRT.BS19500.00

CRT

MAIN SCHEMATIC DIAGRAM - SCHEMA PLATINE PRINCIPALE - SCHALTUNG HAUPTPLATINE - SCHEMA PIASTRA PRINCIPALE - ESQUEMA PLATINA PRINCIPAL


CONVERGENCE UNIT POWER SUPPLY
ALIMENTATION PLATINE DE CONVERGENCE
DIGITAL CONVERGENCE UNIT NETZTEIL
ALIMENTAZIONE CONVERGENCE UNIT
ALIMENTACIÓN CONVERGENCE UNIT
PS. RP19.00
PS. RP19.90
BP0208
BP024


BP020
BP025
MAIN
IP050
MC7809-CT
IP060
TEA2261
IP130
MC7812-CT
IP140
TDA8139
IF001
TDA8177F
POWER AMPLIFIER
THERMAL PROTECTION
DCU RP19
IL062 TL082CD
6Vpp-T=32µs
0,7Vpp-H
2,2Vpp-H
15Vpp-T=32µs
40Vpp-T=32µs
T=10ms
0,8Vpp
80Vpp
13Vpp
1200Vpp-H
1,2Vpp-H
200mVpp
12Vpp
(P) POWER SUPPLY
PP 19400.00 - PP 19401.00
(L) DEFLECTION PART
DP 19400.00

DESIGNATON POWER
PP.19400.00, PP.19401.00

*	PP 19400 00 10530090	PP 19401 00 10534010
	100Hz/Stereo	100Hz/Dolby
CP120	470u0/35V	330u0/25V
CP121	470u0/35V	1MI0/25V
CP126	-	X
DP108/109	RGP30D	BYW029-150
DP126	-	X
DP140	BYW029-150	BYV63-150
JP913	X	-
RP126/128	-	X
RP127/129	-	X
RP130	-	X
TP129	-	X

X Inserted
– Not inserted

▨ Part of board connected to mains supply.
Partie du chassis reliée au secteur.
Primärseite des Netzteils.
Parte dello châssis collegata alla rete.
Parte del chassis conectada a la red.

⚠ Use isolating mains transformer
Utilise un transformateur isolateur du secteur
Einen Trenntrafo verwenden
Utilizar un transformador aislador de red
Utilizzare un transformatore per isolarvi dalla rete

Note :
Power Supply primary circuit measurements.
- Use only (GND1) connection point.
Attention :
Mesure dans la partie primaire de l'alimentation
- Utiliser la masse du bloc alimentation (GND1).
Achtung :
Bei Messungen im Primärnetzteil
- Primärnetzteilmasse verwenden (GND1).
Attenzione :
misure nell'alimentatore primario
- usare massa alimentazione primario (GND1).
Cuidado :
Medida en el bloque de alimentacion
- Utilizar la masa del bloque de alimentacion (GND1).

⚠ Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales

<table>
<tr><th></th><th colspan="2">Deflection - Basic Partlists</th></tr>
<tr><td rowspan="3">*</td><td>100Hz 4/3</td><td>100Hz 16/9</td></tr>
<tr><td>CT 19400 34</td><td>CT 19450 34</td></tr>
<tr><td>10 53 01 10</td><td>10 61 54 40</td></tr>
<tr><td>CF002</td><td colspan="2">680p +/-10% 50V</td></tr>
<tr><td>CL028</td><td colspan="2">1n +10% 100V</td></tr>
<tr><td>CL029</td><td colspan="2">3u3 +20% 63V</td></tr>
<tr><td>CL030</td><td colspan="2">1n9 +/- 5% 2kV</td></tr>
<tr><td>CL031</td><td colspan="2">10n +/- 3.5% 1k5V</td></tr>
<tr><td>CL032</td><td colspan="2">20n +/-5% 400V</td></tr>
<tr><td>CL036</td><td colspan="2">2u2 +20% 250V</td></tr>
<tr><td>CL037</td><td colspan="2">510n +/-5% 250V</td></tr>
<tr><td>CL211</td><td colspan="2">470p +/-10% 50V</td></tr>
<tr><td>DF011</td><td colspan="2">BZW04-48 56V</td></tr>
<tr><td>DL034</td><td colspan="2">EGP10D 200V</td></tr>
<tr><td>DL036</td><td colspan="2">EGP10D 200V</td></tr>
<tr><td>DL071</td><td colspan="2">BZX55C20 20V</td></tr>
<tr><td>DL092</td><td colspan="2">SLP 1N4148 100V</td></tr>
<tr><td>LL008</td><td colspan="2">TF-DST-GDS35</td></tr>
<tr><td>LL029</td><td colspan="2">130u0H +/-5%</td></tr>
<tr><td>LL030</td><td colspan="2">90OHM 50MHz</td></tr>
<tr><td>LL031</td><td colspan="2">WIREBARE</td></tr>
<tr><td>LL037</td><td colspan="2">9u0H +10%</td></tr>
<tr><td>LL046</td><td colspan="2">22u0H +10%</td></tr>
<tr><td>LL047</td><td colspan="2">14u5H +/-5%</td></tr>
<tr><td>RF002</td><td colspan="2">10k +5%</td></tr>
<tr><td>RF012</td><td>1R0 +1%</td><td>1R82 +1%</td></tr>
<tr><td>RF013</td><td colspan="2">1R21 +1%</td></tr>
</table>

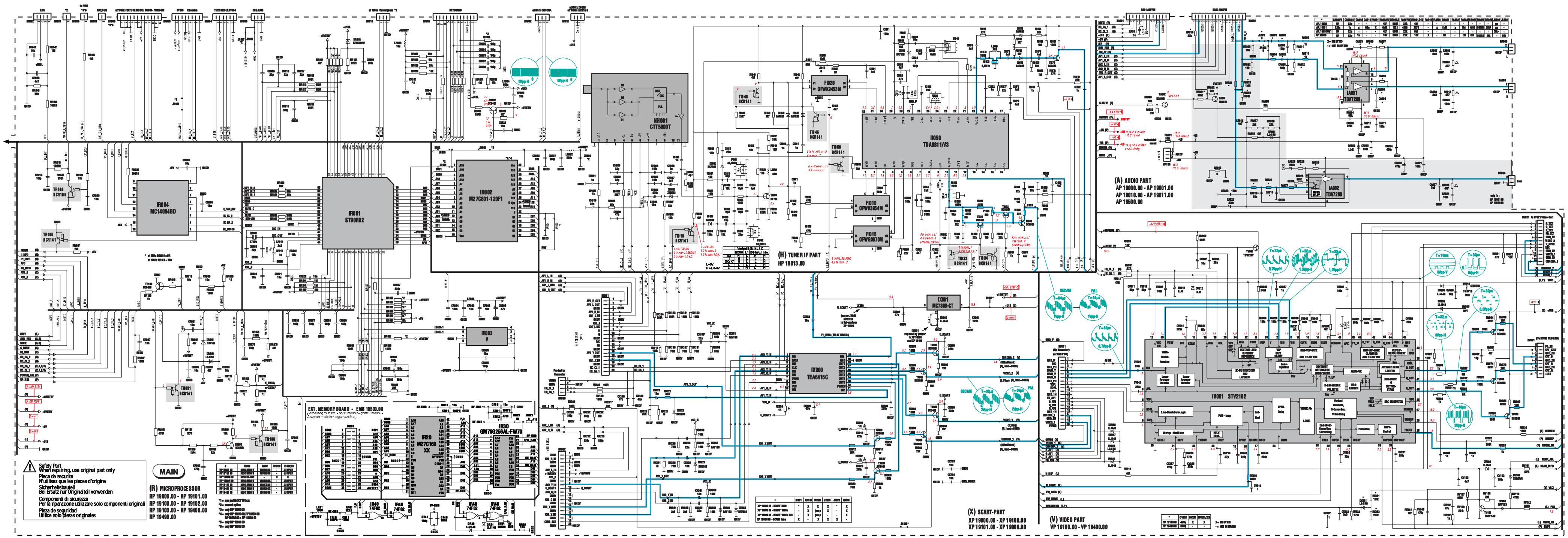
<table>
<tr><th></th><th colspan="2">Deflection - Basic Partlists</th></tr>
<tr><td rowspan="3">*</td><td>100Hz 4/3</td><td>100Hz 16/9</td></tr>
<tr><td>CT 19400 34</td><td>CT 19450 34</td></tr>
<tr><td>10 53 01 10</td><td>10 61 54 40</td></tr>
<tr><td>RF020</td><td colspan="2">270R +1%</td></tr>
<tr><td>RF025</td><td>100R +5%</td><td>120R +5%</td></tr>
<tr><td>RL020</td><td colspan="2">7k15 +1%</td></tr>
<tr><td>RL024</td><td colspan="2">4k02 +1%</td></tr>
<tr><td>RL026</td><td colspan="2">61k9 +1%</td></tr>
<tr><td>RL029</td><td colspan="2">2R2 +5%</td></tr>
<tr><td>RL030</td><td colspan="2">2R2 +5%</td></tr>
<tr><td>RL046</td><td colspan="2">3k3 +5%</td></tr>
<tr><td>RL048</td><td colspan="2">3k3 +5%</td></tr>
<tr><td>RL051</td><td colspan="2">270k +5%</td></tr>
<tr><td>RL053</td><td>16k2 +1%</td><td>30k9 +1%</td></tr>
<tr><td>RL057</td><td colspan="2">60k4 +1%</td></tr>
<tr><td>RL066</td><td colspan="2">4k22 +1%</td></tr>
<tr><td>RL082</td><td colspan="2">59k +1%</td></tr>
<tr><td>RL092</td><td colspan="2">4k7 +5%</td></tr>
<tr><td>RL124</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL125</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL126</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL127</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL134</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL135</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL136</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL137</td><td colspan="2">7k5 +5%</td></tr>
<tr><td>RL211</td><td colspan="2">6k8 +5%</td></tr>
</table>

Note : the last two numbers of the CT xxxx part list name indicates the system voltage.
e.g. CT 19400 34 → Usys 134V

Note : Les deux derniers chiffres de la liste des composants CT xxxx représentent la tension système.
ex. CT 19400 34 → Usys 134V

Nota: Los dos últimos números de la denominación CT xxxx, indica la tensión Usys
e.g. CT 19400 34 → Usys 134V

COMPLETE PCB DIAGRAM - SCHEMA PLATINE EQUIPEE - SCHALTUNG LEITERPLATTE KPL - SCHEMA PIASTRA COMPLETA - ESQUEMA PLATINA EQUIPADA



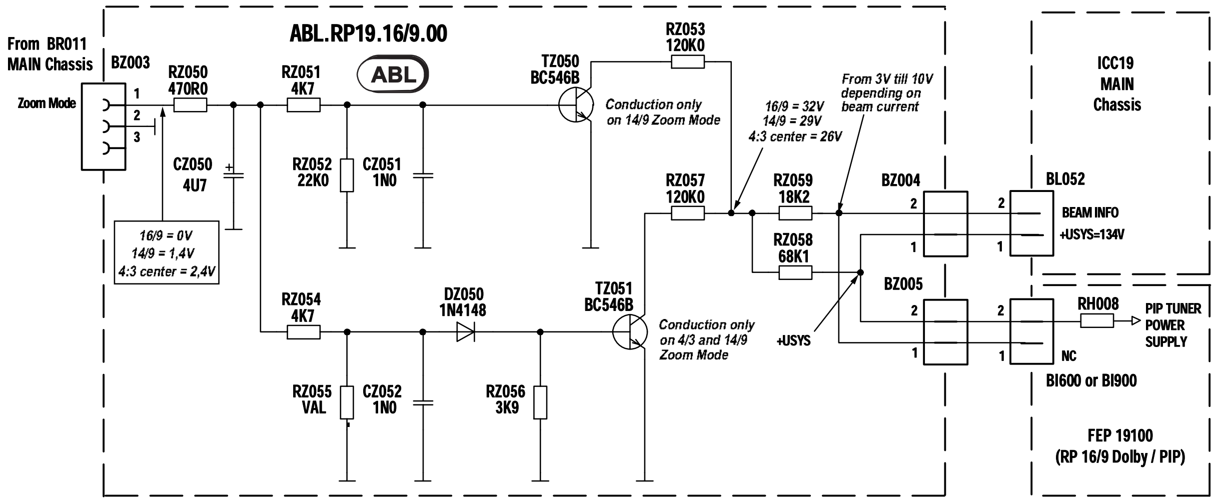
Safety Part
When repairing, use original part only
Piece de securite
N'utilisez que les pieces d'origine
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden
Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali
Pieza de seguridad
Utilice solo piezas originales
MAIN
(R) MICROPROCESSOR
RP 19000.00 - RP 19101.00
RP 19100.00 - RP 19102.00
RP 19103.00 - RP 19400.00
RP 19490.00
EXT. MEMORY BOARD - EMB 19500.00
(according to model - selon modèle - gemäß modell - Secondo modello - según modelo)
IR20
M27C160
XX
IR30
GM76G256AL-FW70
IR001
ST9R02
IR002
M27C801-120F1
IR004
MC14094BD
MH001
CTT5000T
II050
TDA9811/V3
(H) TUNER IF PART
HP 19013.00
IX900
TEA6415C
IX801
MC7809-CT
(X) SCART-PART
XP 19000.00 - XP 19100.00
XP 19101.00 - XP 19900.00
IV001 STV2162
(V) VIDEO PART
VP 19100.00 - VP 19400.00
IA001
TDA7299
IA002
TDA7299
(A) AUDIO PART
AP 19000.00 - AP 19001.00
AP 19010.00 - AP 19011.00
AP 19500.00
SECAM
PAL

RP C19
First issue 07 / 98

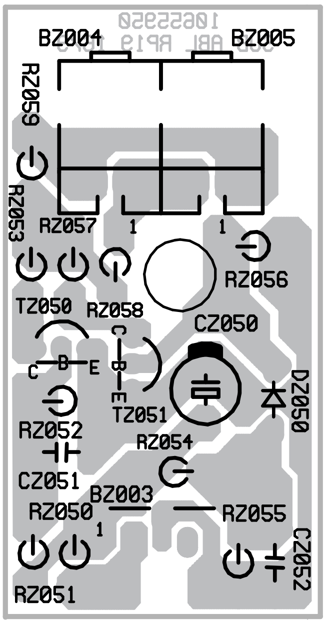
Updated 07 / 99

MC-Service

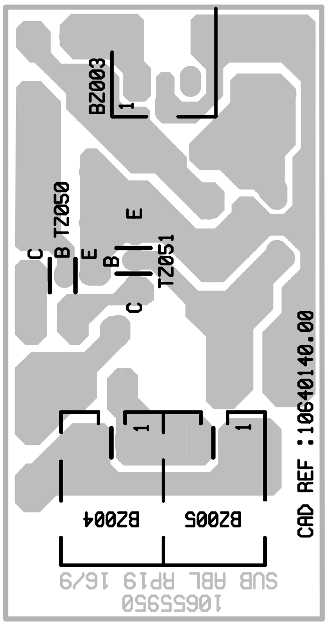
AVERAGE BEAM LIMITER - LIMITATION DU COURANT DE FAISEAU - STRAHLSTROM BEGRENZUNG - LIMITATORE CORRENTE DI RAGGIO - LIMITADOR DE CORRIENTE DE HAZ


ABL.RP19.16/9.00
ABL
From BR011
MAIN Chassis
BZ003
Zoom Mode
1
2
3
RZ050
470R0
RZ051
4K7
CZ050
4U7
RZ052
22K0
CZ051
1N0
16/9 = 0V
14/9 = 1,4V
4:3 center = 2,4V
TZ050
BC546B
Conduction only
on 14/9 Zoom Mode
RZ053
120K0
RZ057
120K0
16/9 = 32V
14/9 = 29V
4:3 center = 26V
From 3V till 10V
depending on
beam current
RZ059
18K2
RZ058
68K1
BZ004
BZ005
BL052
BEAM INFO
+USYS=134V
ICC19
MAIN
Chassis
RZ054
4K7
DZ050
1N4148
TZ051
BC546B
Conduction only
on 4/3 and 14/9
Zoom Mode
+USYS
RH008
PIP TUNER
POWER
SUPPLY
NC
BI600 or BI900
RZ055
VAL
CZ052
1N0
RZ056
3K9
FEP 19100
(RP 16/9 Dolby / PIP)

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE LATO COMPONENTI - LADO COMPONENTES

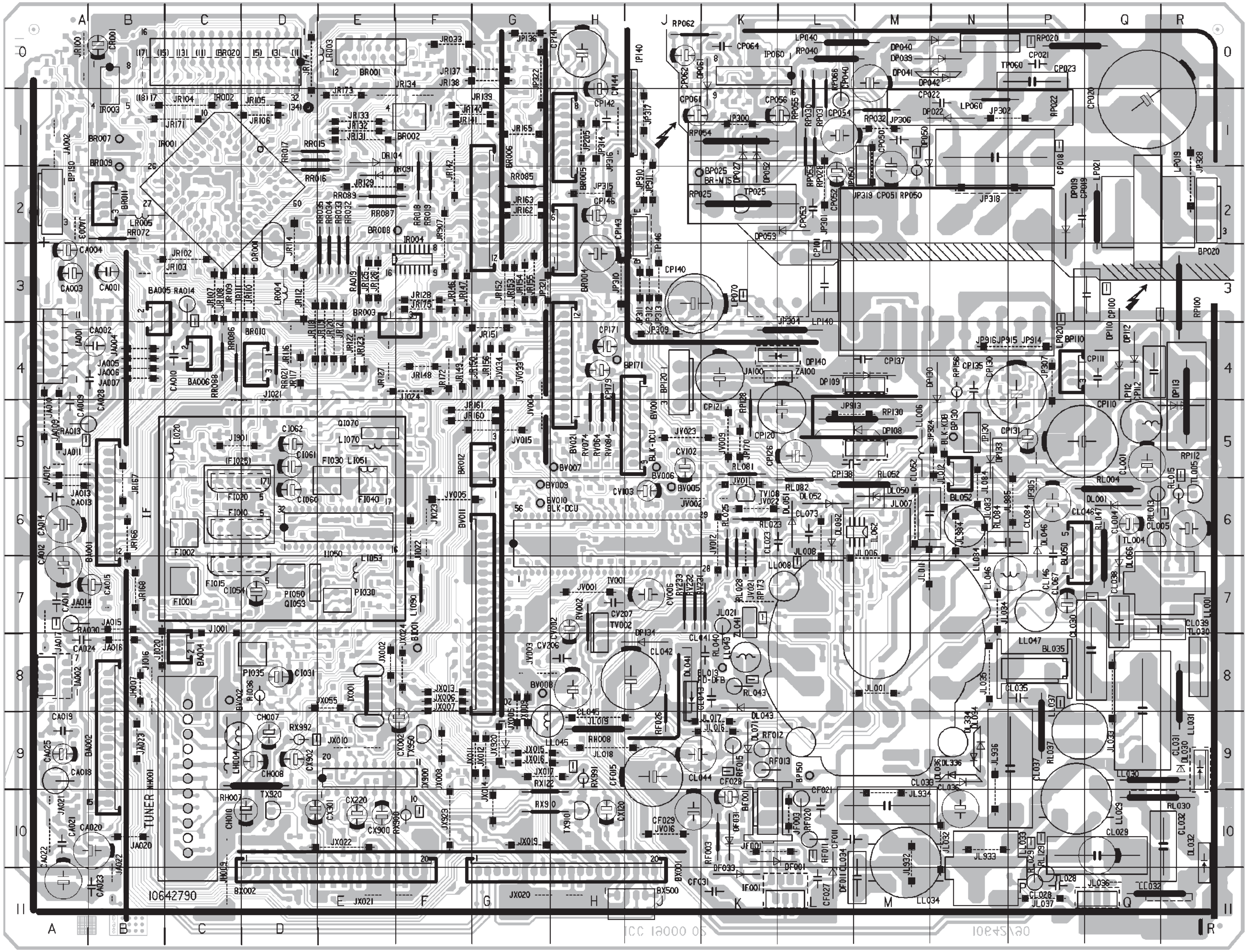

BZ004
BZ005
RZ059
RZ053
RZ057
1
1
RZ056
TZ050
RZ058
CZ050
C
B
E
TZ051
DZ050
RZ052
CZ051
RZ054
BZ003
RZ050
RZ055
CZ052
RZ051

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

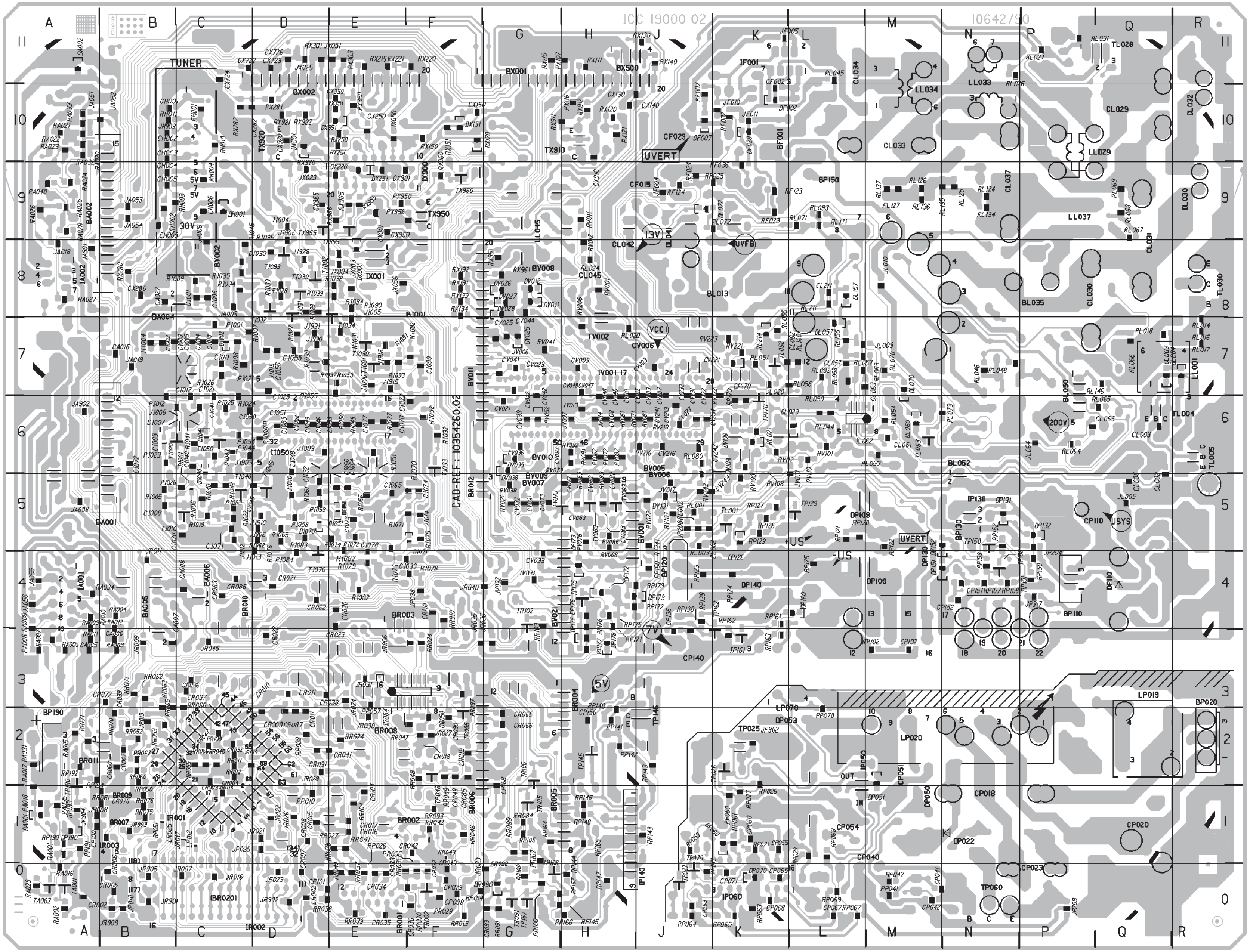

BZ003
1
TZ050
C
B
E
TZ051
CAD REF :10640140.00
BZ004
BZ005
SUB ABL RP19 16/9
10655950

MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES


TUNER
IF
I0642790
A B C D E F G H I J K L M N P Q R
0 1 2 3 4 5 6 7 8 9 10 11

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


A
B
C
D
E
F
G
H
J
K
L
M
N
P
Q
R
11
10
9
8
7
6
5
4
3
2
1
0
TUNER
ICC 19000 02
10642/90
CAD-REF: 10354260.02
UVERT
13V
UVFB
VCC1
200V
USYS
US
-US
7V
5V
30V
OUT
IN

COMPONENTS LOCATION - LOCALISATION DES ELEMENTS - LAGE DER BAUTEILE - LOCALIZZAZIONE DEGLI ELEMENTI - LOCALIZACION DE LOS COMPONENTES

* SOLDER SIDE - COTE CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE

1	2	3

BA001		B6
BA005		B3
BF001		K10
BI001		F8
BL013		K8
BL035		P8
BL052		N5
BP025		J2
BP110		P4
BP130		N5
BP150		L9
BP171	*	H4
BP190		A2
BR001		E0
BR002		F1
BR003		F4
BR004		H2
BR005		H1
BR006		G2
BR007		B1
BR008		F2
BR009		B2
BR010		D4
BR011		B2
BR012		G5
BV001		J5
BV002		C8
BV005		J6
BV006		J5
BV007	*	H5
BV008		G8
BV009		G6
BV010		G6
BV011		G7
BV021		H4
BX001		H11
BX002		E11
BX500		J11

CA001		B3
CA002		B4
CA003		A3
CA004		A3
CA005	*	B3
CA006	*	B3
CA007	*	C3
CA008	*	C4
CA009		A5
CA010		C4
CA011		A7
CA012		A7
CA013		A6
CA014		A6
CA015		B7
CA016	*	B7
CA018		A9
CA019		A9
CA020		B10
CA021		A10
CA022		A11
CA023		B11
CA024		A8
CA025		A9
CA027	*	C8
CA028		B4
CF002	*	K10
CF011		L10
CF015		J9
CF021		L10
CF027		L11
CF028		K10
CF029		J10
CF031		K11
CH001	*	C10
CH002	*	C10
CH003	*	C10
CH004	*	C9
CH005	*	C9
CH006	*	C9
CH007		D9
CH008		D9
CH009	*	B9
CH010		D10
CI001	*	C8
CI002	*	B7
CI003	*	C7
CI004	*	C7
CI005	*	C7
CI006	*	C8
CI007	*	B6
CI008	*	C5
CI009	*	C6
CI010	*	C7
CI011	*	C7
CI012	*	C6
CI020	*	C5
CI021	*	C6
CI022	*	F6
CI025	*	D7
CI030	*	D8
CI031		D8
CI032	*	E5
CI033	*	F4
CI040	*	C6
CI041	*	C6
CI045	*	D5
CI046	*	E6
CI048	*	D6
CI049	*	D6
CI050	*	D6
CI051	*	D6
CI052	*	D6
CI053	*	E6
CI054		D7
CI055	*	D7
CI056	*	D7
CI060		D6
CI061		D5
CI062		D5
CI063	*	D6
CI064	*	E5
CI065	*	E5
CI066	*	E5
CI070	*	F6
CI071	*	C5
CI072	*	B6
CI073	*	E5
CI074	*	F5
CI077	*	E6
CI078	*	E4
CI090	*	F7
CL001		Q5
CL002	*	K5
CL003	*	Q6
CL004		Q6
CL005		R6
CL006	*	Q5
CL008	*	R5
CL023		L6
CL027	*	J6
CL028		P11
CL029		Q10
CL029		Q10
CL030		Q8
CL031		Q8
CL032		R10
CL033		M10
CL034		M11
CL035		P8
CL036		N10
CL037		P9
CL038		Q7
CL039		R7
CL041		K8
CL042		J8
CL043		K8
CL044		J9
CL045		H8
CL046		P6
CL052		M6
CL057	*	L7
CL061	*	M6
CL062	*	L7
CL063	*	M7
CL066	*	Q6
CL067		P7
CL073		L6
CL084		P6
CL146		P6
CL211	*	L8
CP018		N1
CP019		P2
CP020		Q1
CP021		P0
CP022		N1
CP023		P0
CP040		M0
CP041	*	N0
CP042	*	N0
CP050		M1
CP051		M2
CP052		L2
CP053		L2
CP054		L1
CP055	*	L1
CP056		L1
CP060	*	K1
CP061		J1
CP062		J0
CP063	*	J0
CP064		K0
CP065	*	L0
CP067	*	L0
CP068	*	K0
CP071	*	K0
CP100		P3
CP100		Q3
CP101		L3
CP102	*	M3
CP110		P5
CP111		Q4
CP112		Q4
CP120		L5
CP121		K4
CP126		L5
CP130		P4
CP131		P5
CP135		N4
CP136	*	J3
CP137		M4
CP138		L5
CP140		J3
CP141		H0
CP142		H1
CP143		H3
CP144		H1
CP146		H2
CP150	*	H2
CP151	*	N4
CP152	*	N4
CP168	*	G1
CP170	*	K6
CP171		H4
CP176	*	H4
CP179		H4
CR001		B0
CR002	*	A0
CR003	*	C2
CR004	*	C2
CR005	*	B0
CR006	*	B0
CR007	*	D0
CR008	*	D1
CR009	*	D2
CR010	*	D2
CR011	*	D2
CR015	*	D1
CR016	*	E1
CR017	*	E1
CR018	*	F2
CR019	*	F2
CR020	*	E4
CR021	*	D4
CR022	*	D3
CR023	*	E4
CR029	*	F0
CR030	*	F0
CR032	*	F0
CR033	*	E0
CR034	*	E0
CR035	*	E0
CR036	*	C3
CR037	*	C3
CR038	*	E3
CR039	*	B2
CR041	*	E2
CR042	*	F1
CR043	*	F0
CR049	*	F2
CR050	*	F2
CR060	*	B2
CR062	*	D4
CR063	*	C4
CR065	*	G2
CR066	*	G2
CR067	*	B2
CR072	*	B3
CR075	*	B1
CR085	*	F2
CR086	*	C4
CR087	*	D2
CR090	*	F2
CR091	*	E2
CR092	*	C2
CR093	*	G0
CR098	*	F0
CR100	*	B1
CR101	*	E0
CR104	*	E1
CR110	*	F4
CV002		H7
CV003	*	J6
CV006		J7
CV007	*	J6
CV008	*	H6
CV009	*	H7
CV011	*	J6
CV012	*	J6
CV021	*	G6
CV022	*	G7
CV023	*	G7
CV025	*	G7
CV031	*	G5
CV032	*	G5
CV033	*	G4
CV036	*	G6
CV039	*	G6
CV041	*	G7
CV042	*	G6
CV044	*	G8
CV046	*	H6
CV047	*	H6
CV048	*	H7
CV062	*	H5
CV063	*	H5
CV072	*	H5
CV073	*	H5
CV082	*	H5
CV083	*	H5
CV092	*	H6
CV102		J5
CV103		J6
CV206		H8
CV207		H7
CV213	*	J6
CV216	*	J6
CV222	*	K6
CV231	*	J6
CV232	*	J6
CV234	*	K6
CV241	*	J6
CV242	*	K6
CV243	*	K5
CV246	*	H6
CX001	*	E9
CX002		F9
CX120		H10
CX130	*	J10
CX140	*	J10
CX150	*	G10
CX220		E10
CX250	*	E10
CX280	*	B8
CX282	*	D10
CX301		D10
CX350	*	E10
CX722	*	D11
CX723	*	D11
CX724	*	C11
CX726	*	D11
CX900		E10
CX901	*	F9
CX902		D9
CX910	*	H10
CX920	*	D10
CX950	*	F9
CX965	*	E9

DA001	*	A1
DA002	*	A11
DF001		K10
DF002	*	K10
DF007	*	K10
DF011		L11
DF028	*	K10
DF031		K10
DF033		K11
DH001	*	C9
DI001	*	C5
DI002	*	C7
DI040	*	C6
DI041	*	C6
DI051	*	E5
DI070	*	E5
DI071	*	F5
DL001		Q6
DL003	*	R7
DL004	*	R7
DL023	*	L6
DL030		R9
DL030		R9
DL032		R11
DL034		N9
DL036		N9
DL041		J8
DL041		J8
DL041		J8
DL043		K8
DL046		P6
DL050		M6
DL051		L6
DL052		L6
DL057	*	L7
DL060	*	M6
DL066		Q7
DL070	*	M7
DL071		K9
DL072	*	K9
DL092		L6
DL157	*	L8
DP019		P2
DP022		N1
DP027		K1
DP039		N0
DP040		N0
DP041		N0
DP050		M1
DP051	*	M2
DP052		K1
DP053		L2
DP060	*	K1
DP061		K0
DP070	*	K0
DP108		L5
DP108		M4
DP108		M5
DP109		M4
DP109		M4
DP109		M4
DP110		Q4
DP112		Q4
DP113		R5
DP126	*	K5
DP130		N4
DP131	*	N5
DP132	*	P5
DP133		N5
DP134		J8
DP140		L4
DP140		L4
DP151	*	N4
DP152	*	N5
DP160	*	L4
DP172	*	H4
DP173	*	H4
DP175	*	H3
DP178	*	H3
DP179	*	J4
DP190	*	A1
DR090	*	G0
DR091		E2
DR104		E1
DV011	*	G8
DV012	*	G8
DV025	*	G7
DV026	*	G8
DV027	*	G8
DV028	*	G8
DV038	*	G6
DV039	*	G6
DV101	*	J5
DV104	*	K5
DV108	*	K6
DV221	*	K7
DX001	*	E8
DX120	*	G10
DX151	*	F10
DX220	*	E9
DX251	*	E9
DX301	*	D10
DX351	*	E10

FI001		C7
FI002		C6
FI010		C6
FI015		C7
FI020		C6
FI030		E6
FI040		E6

IA001		A4
IA001		A7
IA001		A8
IA002		A2
IF001		L11
II050		E6
IL062		M6
IP050		M1
IP060		K0
IP130		N5
IP140		J1
IP140		J2
IR001		C2
IR002		C0
IR003		B0
IR004		F3
IV001		H6
IX001		E8
IX001		E8
IX900		E9

JA002		A1
JA003		A2
JA004		B4
JA005		B4
JA006		B4
JA007		B4
JA008	*	A5
JA009		A5
JA010		A5
JA011		A5
JA012		A5
JA013		A6
JA014		B7
JA015		B7
JA016		B8
JA017		A7
JA018	*	A8
JA019	*	B7
JA020		B10
JA021		A10
JA022		B11
JA023		B9
JA051	*	A10
JA052	*	B10
JA053	*	B9
JA054	*	B9
JA055	*	A4
JA056	*	A4
JA100		K4
JA901	*	B8
JA902	*	A6
JF001		K10
JF003		L10
JF004	*	J9
JF005	*	L11
JF010	*	K10
JF011	*	K10
JH005	*	C8
JH006	*	C8
JH007		B8
JH009		C11
JH903	*	C10
JI001		C7
JI004	*	D9
JI005	*	E7
JI006	*	E7
JI008	*	C6
JI009	*	E6
JI010	*	D5
JI012	*	C5
JI013	*	D5
JI014	*	F5
JI015	*	D7
JI016		B8
JI020		B8
JI021		D5
JI022		F6
JI023		F6
JI024		F4
JI901		C5
JI902	*	D5
JI903	*	D6
JI906	*	D8
JI910	*	D5
JI915	*	E7
JI916	*	E7
JI928	*	D8
JI930	*	D7
JI931	*	D8
JL001		M8
JL005	*	Q5
JL006		M7
JL007		M6
JL008		L6
JL009	*	M7
JL010	*	M8
JL011		M7
JL012		N6
JL016		K9
JL017		K9
JL018		H9
JL019		H9
JL020	*	K7
JL021		K7
JL032		N10
JL033		Q8
JL034		N7
JL035		N8
JL036		Q11
JL037		P11
JL064	*	P6
JL083		N6
JL084		N6
JL932		M10
JL933		N10
JL934		M10
JL936		N10
JL984		N6
JL985		P6
JP136		G0
JP170		K5
JP204	*	P5
JP205		H1
JP208	*	J5
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JP307		P4
JP309		J4
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JP314		H1
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TP150	*	N5
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TR002	*	F0
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TV063	*	H5
TV073	*	H5
TV083	*	H5
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TX955	*	E9
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DVT 19510

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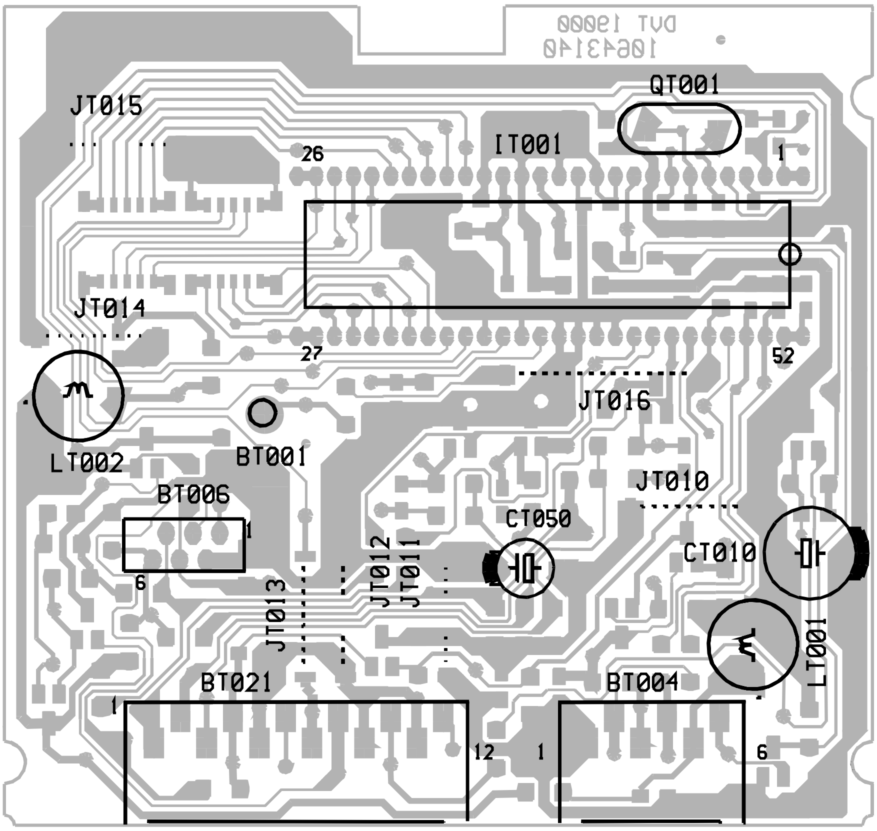
LATO COMPONENTI - LADO COMPONENTES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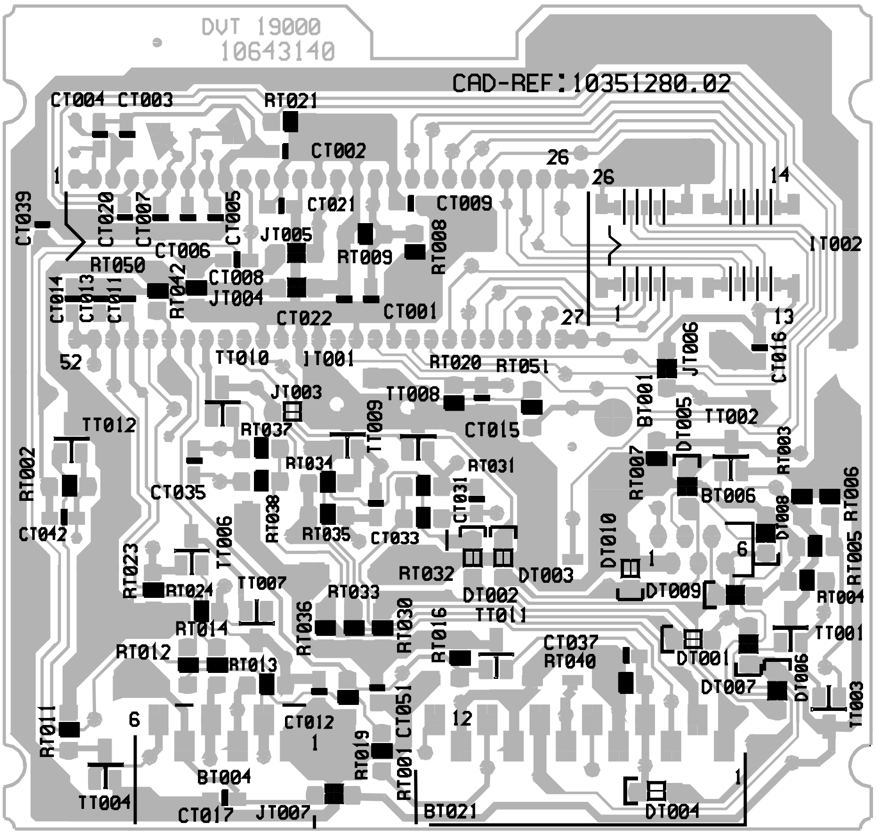
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE -
LADO SOLDADURAS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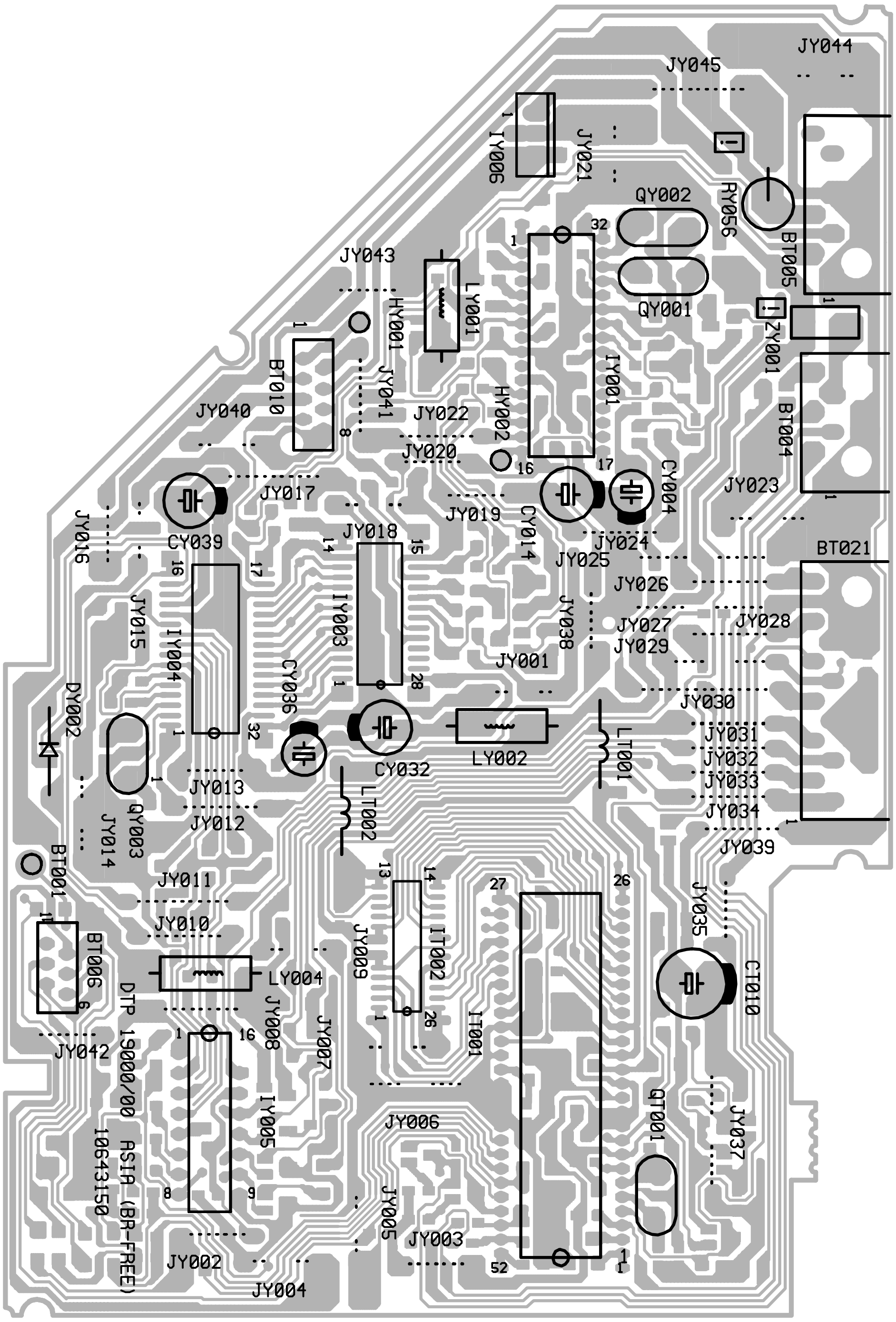
PICTURE IN PICTURE - MODULE IMAGE DANS L'IMAGE - BILD IM BILD BAUSTEIN - MODULO IMMAGINE NELL' IMMAGINE - MODULO IMAGEN EN IMAGEN

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES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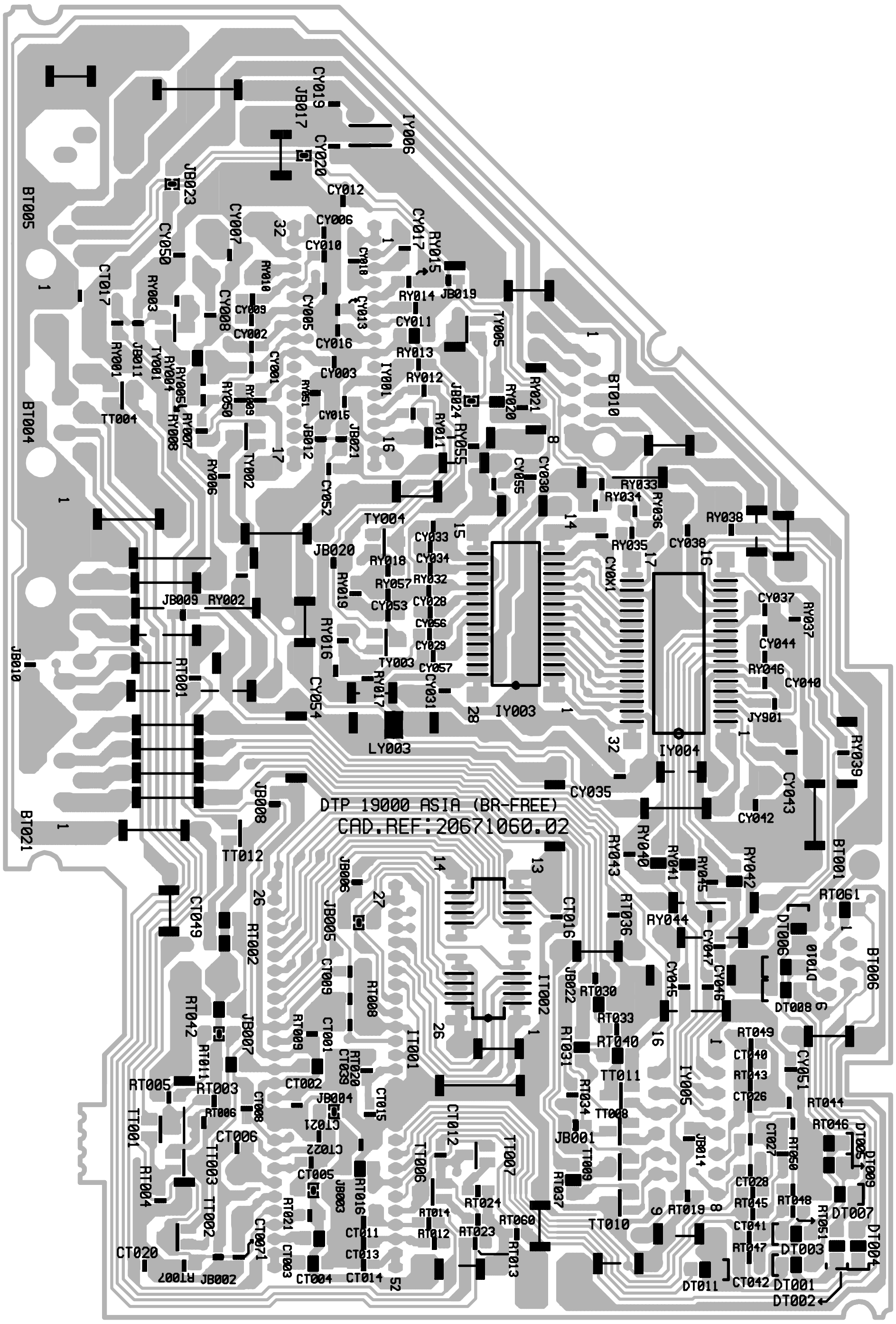
PICTURE IN PICTURE - MODULE IMAGE DANS L'IMAGE - BILD IM BILD BAUSTEIN - MODULO IMMAGINE NELL' IMMAGINE - MODULO IMAGEN EN IMAGEN

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS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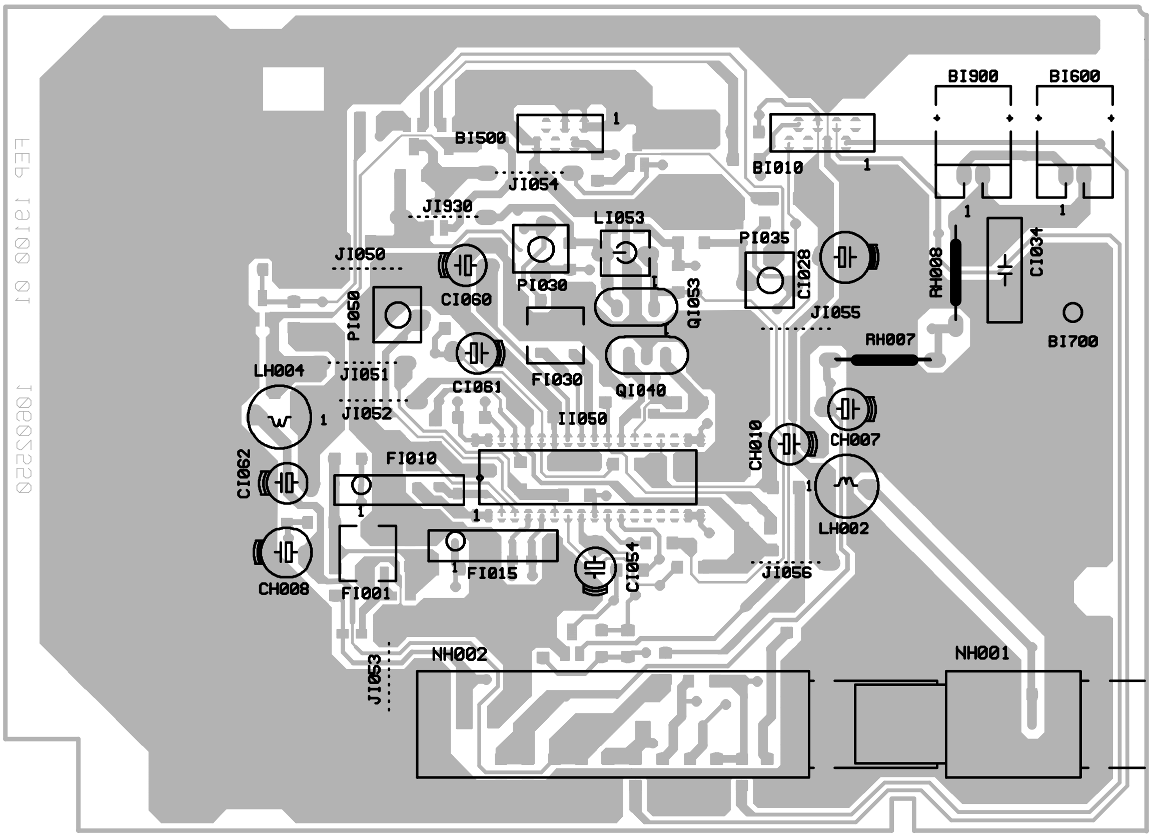
TY003
JB020
JB009
RY002
RT001
CY035
CY043
CY042
RY039
RT061
CT016
RT036
RT030
RT033
RT040
TT011
TT012
TT010
JB001
JB008
JB006
JB007
JB004
JB002
CT049
RT002
RT042
RT005
RT003
RT004
TT001
TT002
TT003
CT006
CT002
CT005
CT004
CT014
CT020
CT012
TT006
TT007
RT024
RT023
RT014
RT012
RT013
RT060
RT037
RT019
RT049
RT044
RT046
DT007
DT003
DT001
DT002
DT004
DT011
DT008
CT042
CY051
RY040
RY043
RY041
RY045
RY042
RY044
IY005
JY901
CY037
CY044
RY046
CY040
RY037
RY033
RY034
RY035
RY036
RY038
CY036
CY012
CY006
CY010
CY017
RY015
JB019
RY014
CY011
RY013
RY012
CY016
CY003
CY015
TY005
RY020
RY021
JB024
RY055
CY019
JB017
CY020
JB023
CY007
CY050
CT017
RY003
CY008
CY009
CY002
RY001
TT004
TY002
RY006
CY052
RY018
RY019
RY016
RY017
RY057
CY053
CY054
CY031
JB010

RF - IF PART PIP - FEP 19100

COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES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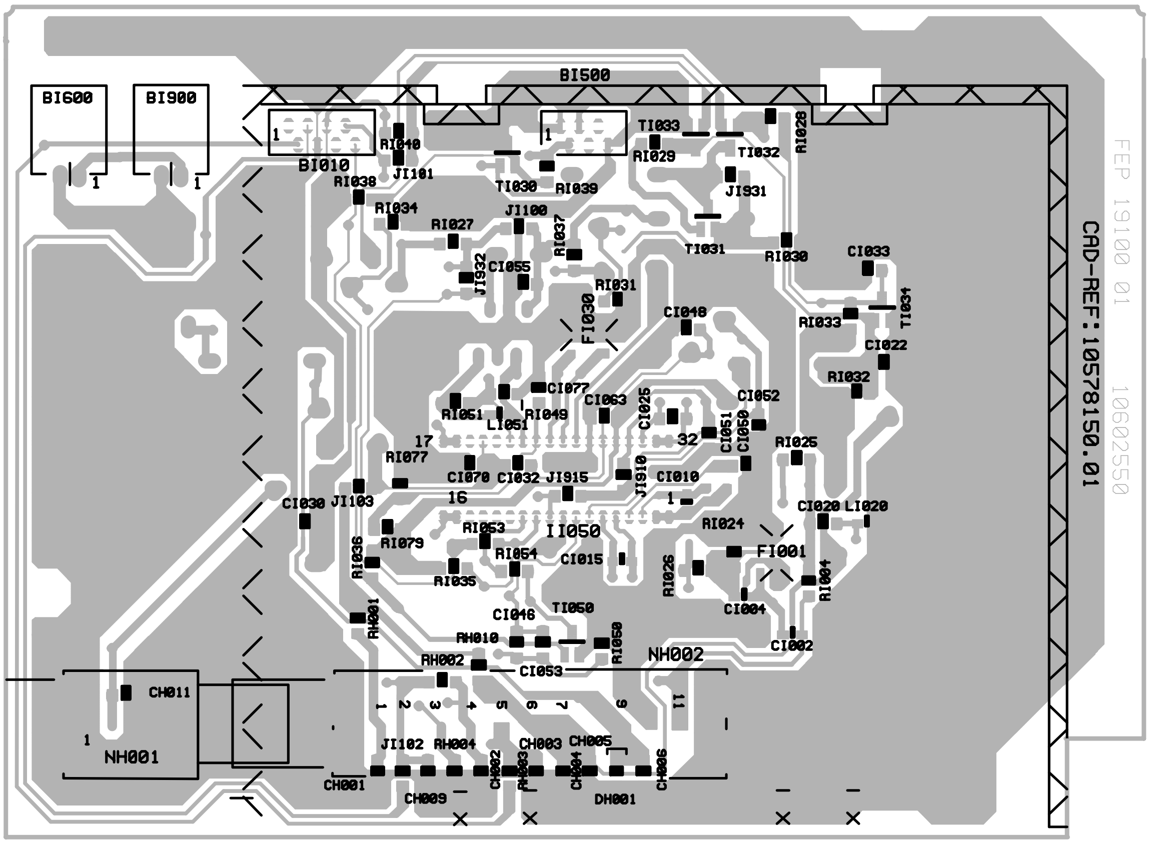
BI600
BI500
BI010
JI054
JI930
LI053
PI035
JI050
CI060
PI030
CI028
PI050
QI053
JI055
RH008
CI034
BI700
RH007
LH004
JI051
CI061
FI030
QI040
JI052
II050
CH007
CH010
FI010
CI062
LH002
FI015
CI054
JI056
CH008
FI001
NH002
NH001
JI053

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS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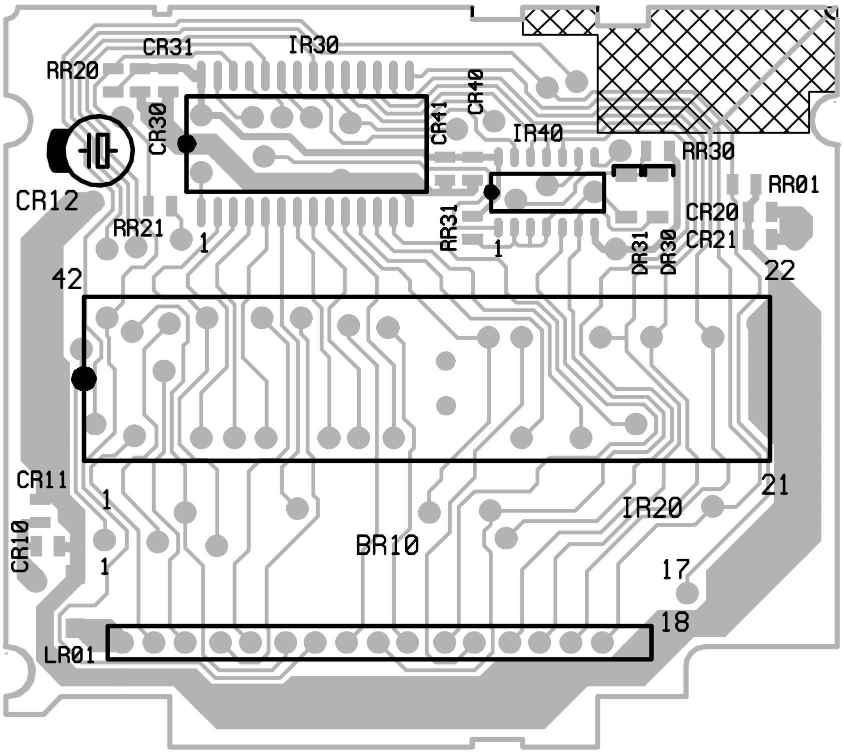
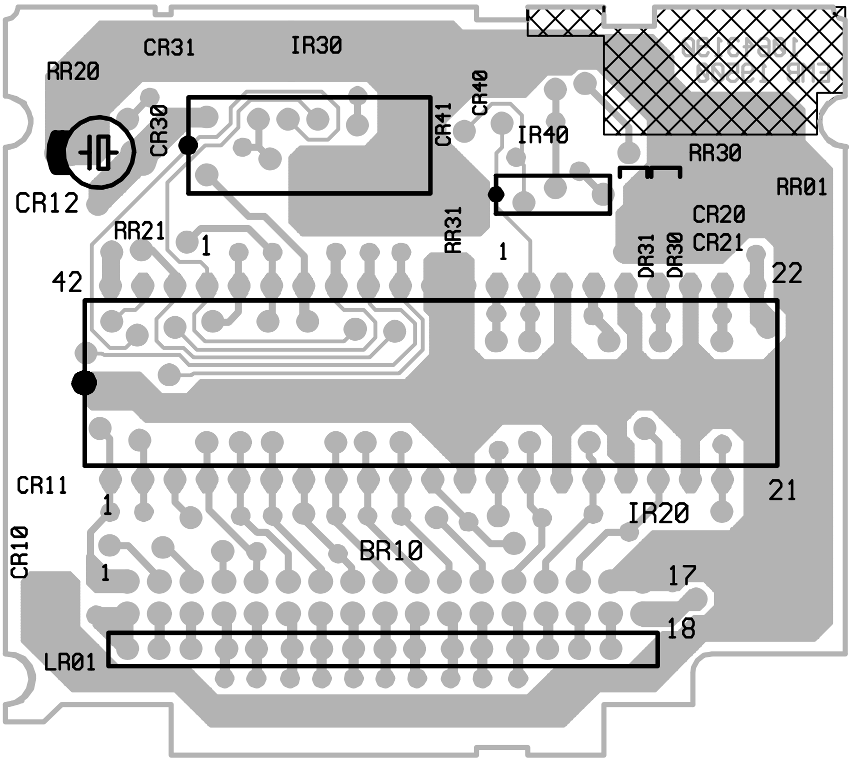
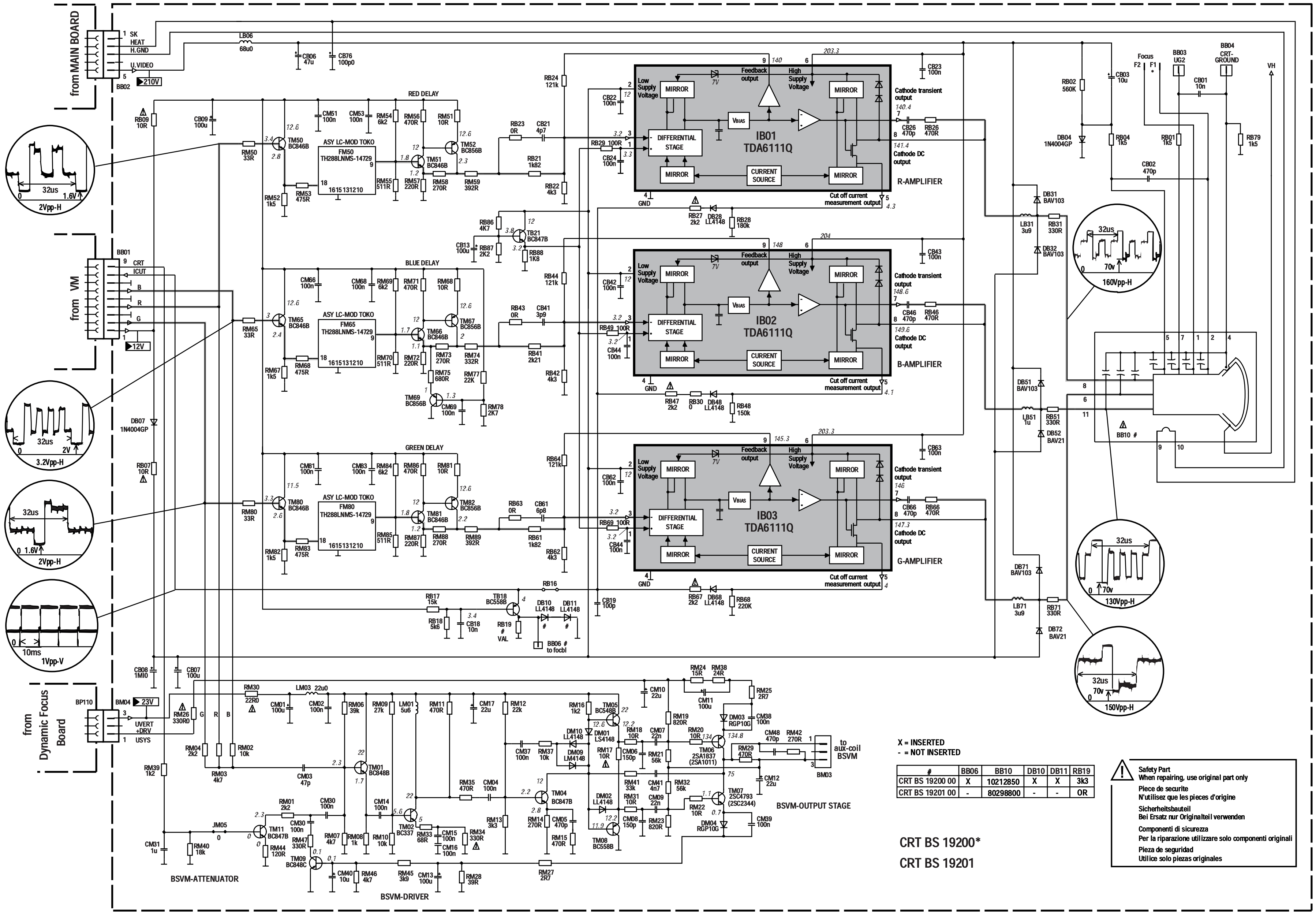
BI900
BI500
BI010
TI033
RI040
RI029
TI032
RI028
RI038
JI101
TI030
RI039
JI931
RI034
JI100
RI027
RI037
TI031
RI030
CI033
JI932
CI055
RI031
FI030
CI048
TI034
RI033
CI022
RI032
CI077
CI063
CI026
CI052
RI051
LI051
RI049
CI051
CI050
17
32
RI025
RI077
CI070
CI032
JI915
JI910
CI010
CI030
JI103
16
CI020
LI020
RI053
II050
RI024
FI001
RI079
RI054
CI015
RI036
RI035
RI026
RI004
CI004
CI046
TI050
RH001
RH010
RI050
CI002
RH002
CI053
NH002
CH011
NH001
JI102
RH004
CH003
CH005
CH001
CH009
CH002
RH003
CH004
CH006
DH001
FEP 19100 01
CAD-REF:10578150.01
10602550

EXTENSION MEMORY BOARD - PLATINE EXTENSION MEMOIRE - SPEICHERERWEITERUNGSPLATINE - PIASTRA ESTENSIONE MEMORIA - PLACA EXTENSION DE MEMORIA


CR31
IR30
RR20
CR30
CR41
CR40
IR40
RR30
RR01
CR12
RR21
1
RR31
1
CR20
CR21
DR31
DR30
42
22
CR11
21
1
IR20
CR10
BR10
1
17
18
LR01


CR31
IR30
RR20
CR30
CR41
CR40
IR40
RR30
RR01
CR12
RR21
1
RR31
1
CR20
CR21
DR31
DR30
42
22
CR11
21
1
IR20
CR10
BR10
1
17
18
LR01

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19200 - CRTBS19201 - CRTBS 19401



from MAIN BOARD
SK
HEAT
H.GND
U.VIDEO
210V
BB02
from VM
BB01
CRT
ICUT
B
R
G
12V
from Dynamic Focus Board
BP110
BM04
23V
UVERT
+DRV
USYS
RED DELAY
BLUE DELAY
GREEN DELAY
ASY LC-MOD TOKO
FM50
FM65
FM80
TH288LNMS-14729
1615131210
IB01
IB02
IB03
TDA6111Q
Low Supply Voltage
MIRROR
DIFFERENTIAL STAGE
CURRENT SOURCE
Feedback output
High Supply Voltage
VBIAS
Cathode transient output
Cathode DC output
Cut off current measurement output
GND
R-AMPLIFIER
B-AMPLIFIER
G-AMPLIFIER
Focus
F2
F1
BB03
UG2
BB04
CRT-GROUND
VH
BB10 #
BB06 # to focbl
32us
1.6V
2Vpp-H
2V
3.2Vpp-H
10ms
1Vpp-V
70v
160Vpp-H
130Vpp-H
150Vpp-H
BSVM-ATTENUATOR
BSVM-DRIVER
BSVM-OUTPUT STAGE
to aux-coil BSVM
BM03

X = INSERTED
- = NOT INSERTED

#	BB06	BB10	DB10	DB11	RB19
CRT BS 19200 00	X	10212850	X	X	3k3
CRT BS 19201 00	-	80298800	-	-	OR

CRT BS 19200*

CRT BS 19201

⚠ **Safety Part**
When repairing, use original part only

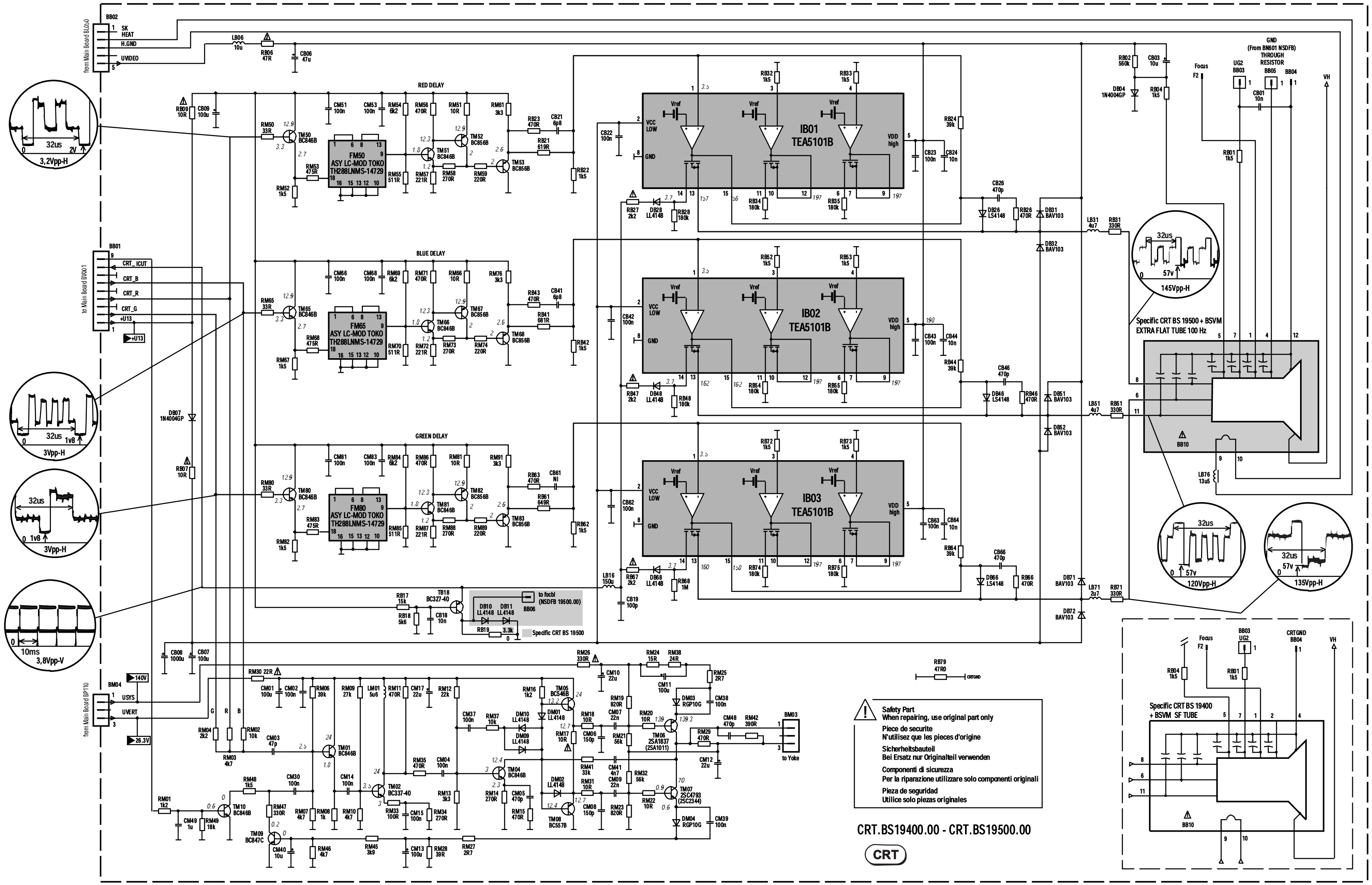
Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

Pieza de seguridad
Utilice solo piezas originales

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19400


BB02
SK HEAT
H.GND
UVIDEO
from Main Board BL050
LB06 10u
RB06 47R
CB06 47u
RED DELAY
BLUE DELAY
GREEN DELAY
FM50 ASY LC-MOD TOKO TH288LNMS-14729
FM65 ASY LC-MOD TOKO TH288LNMS-14729
FM80 ASY LC-MOD TOKO TH288LNMS-14729
TM50 BC846B
TM51 BC846B
TM52 BC856B
TM53 BC856B
TM65 BC846B
TM66 BC846B
TM67 BC856B
TM68 BC856B
TM80 BC846B
TM81 BC846B
TM82 BC856B
TM83 BC856B
IB01 TEA5101B
IB02 TEA5101B
IB03 TEA5101B
Vref
VCC LOW
GND
VDD high
BB01
CRT_ICUT
CRT_B
CRT_R
CRT_G
+U13
to Main Board BV001
DB07 1N4004GP
TB18 BC327-40
to focbl (NSDFB 19500.00)
DB10 LL4148
DB11 LL4148
BB06
Specific CRT BS 19500
BB04
USYS
UVERT
from Main Board BP110
140V
26.3V
TM01 BC846B
TM02 BC337-40
TM04 BC846B
TM05 BC546B
TM06 2SA1837 (2SA1011)
TM07 2SC4793 (2SC2344)
TM08 BC557B
TM09 BC847C
TM10 BC846B
DM03 RGP10G
DM04 RGP10G
BM03
to Yoke
RB79 47R0
CRTGND
GND (From BN601 NSDFB) THROUGH RESISTOR
Focus F2
UG2 BB03
BB05
BB04
VH
DB04 1N4004GP
Specific CRT BS 19500 + BSVM EXTRA FLAT TUBE 100 Hz
BB10
LB76 13uS
Specific CRT BS 19400 + BSVM SF TUBE
32us
2V
3,2Vpp-H
1v8
3Vpp-H
3Vpp-H
10ms
3,8Vpp-V
57v
145Vpp-H
120Vpp-H
135Vpp-H

Safety Part
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

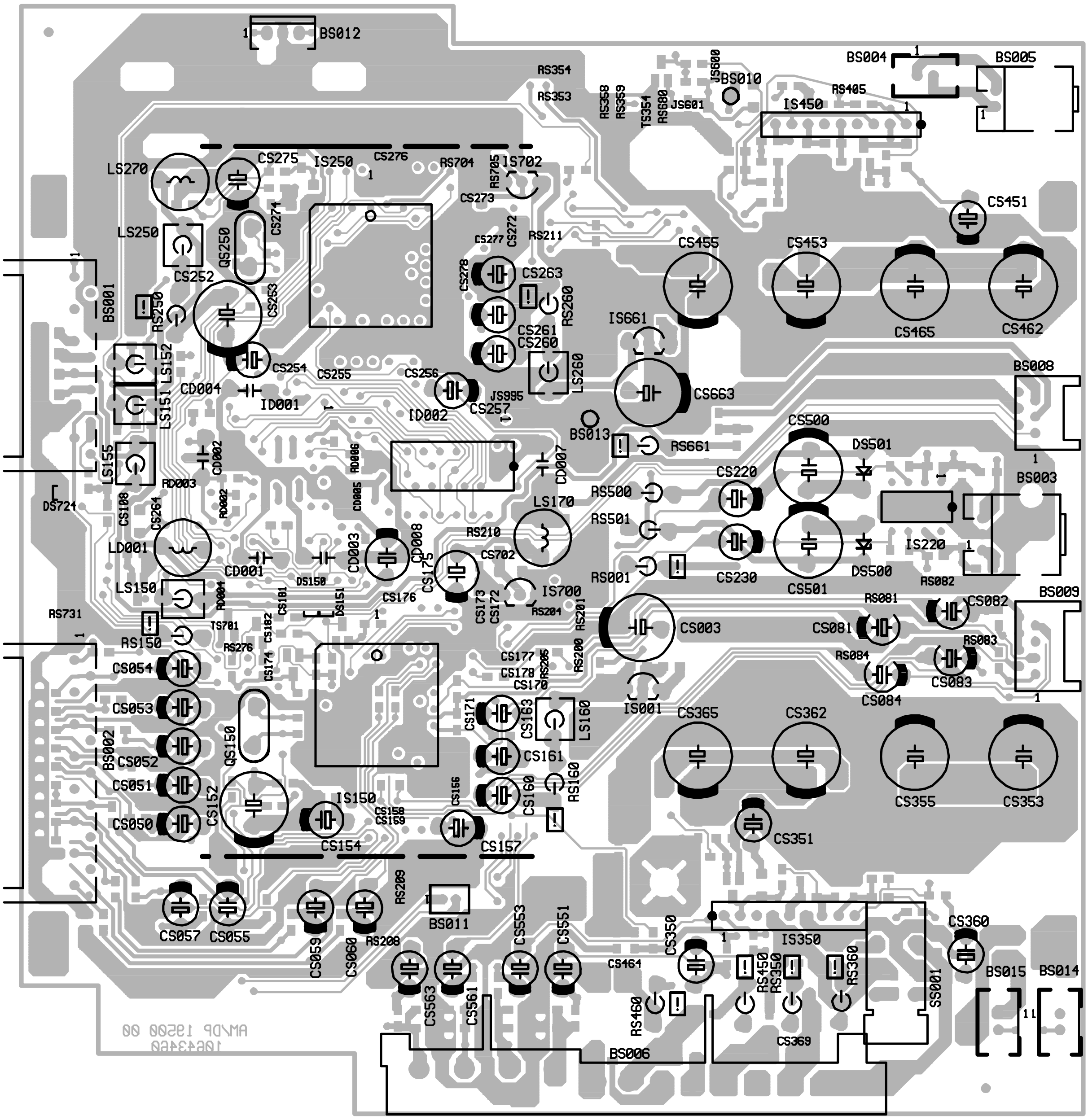
Pieza de seguridad
Utilice solo piezas originales

CRT.BS19400.00 - CRT.BS19500.00

CRT

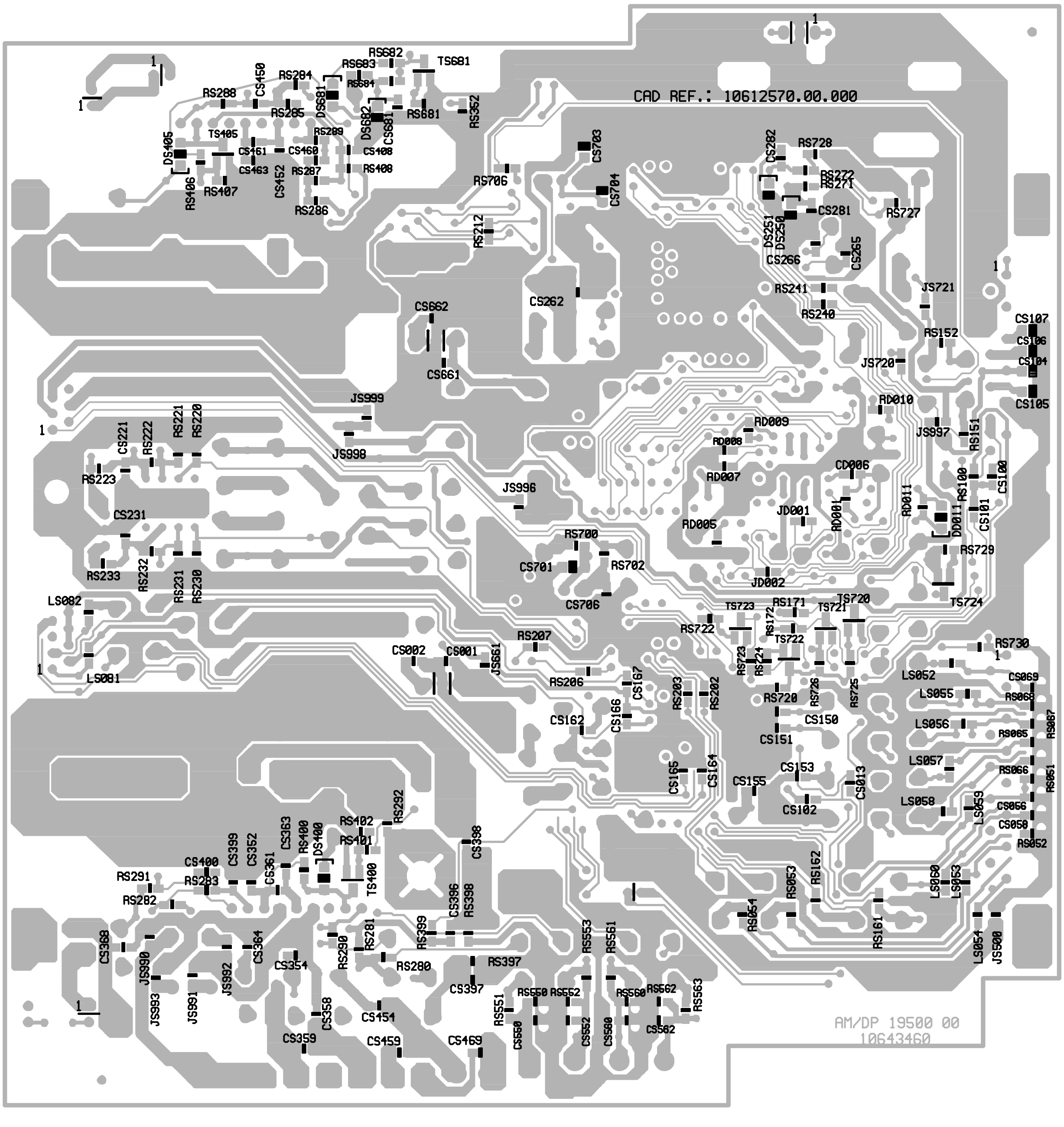
AM / DP 19500

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES


BS012
RS354
RS353
RS358
RS359
TS354
RS680
JS600
JS601
BS010
IS450
RS405
BS004
BS005
LS270
CS275
IS250
CS276
RS704
RS705
IS702
CS273
LS250
QS250
CS274
CS277
CS272
RS211
CS451
CS455
CS453
BS001
RS250
CS252
CS253
CS278
CS263
RS260
CS261
CS260
IS661
CS465
CS462
LS152
LS151
CD004
CS254
CS255
CS256
JS995
CS257
LS260
CS663
BS008
ID001
ID002
BS013
RS661
CS500
DS501
LS155
CD002
RD006
CD007
RS500
CS220
BS003
RD003
DS724
CS108
CS264
RD002
CD005
LS170
RS501
IS220
LD001
CD001
CD003
CD008
RS210
CS702
CS175
DS500
CS230
RS001
CS501
RS082
LS150
DS150
CS176
IS700
CS173
CS172
RS204
RS201
RS081
CS082
BS009
RS731
RS150
RD004
TS701
CS181
DS151
CS182
CS003
CS081
RS083
RS276
CS054
CS174
CS177
CS178
RS206
CS170
RS200
RS084
CS083
CS084
IS001
CS053
BS002
CS052
CS051
CS050
QS150
CS152
CS171
CS163
LS160
CS161
CS365
CS362
IS150
CS156
CS158
CS159
CS160
RS160
CS355
CS353
CS154
CS157
CS351
CS057
CS055
CS059
CS060
RS209
RS208
BS011
CS553
CS551
CS563
CS561
CS350
CS464
IS350
RS450
RS350
RS360
CS360
RS460
SS001
BS015
BS014
BS006
CS369

AM / DP 19500

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS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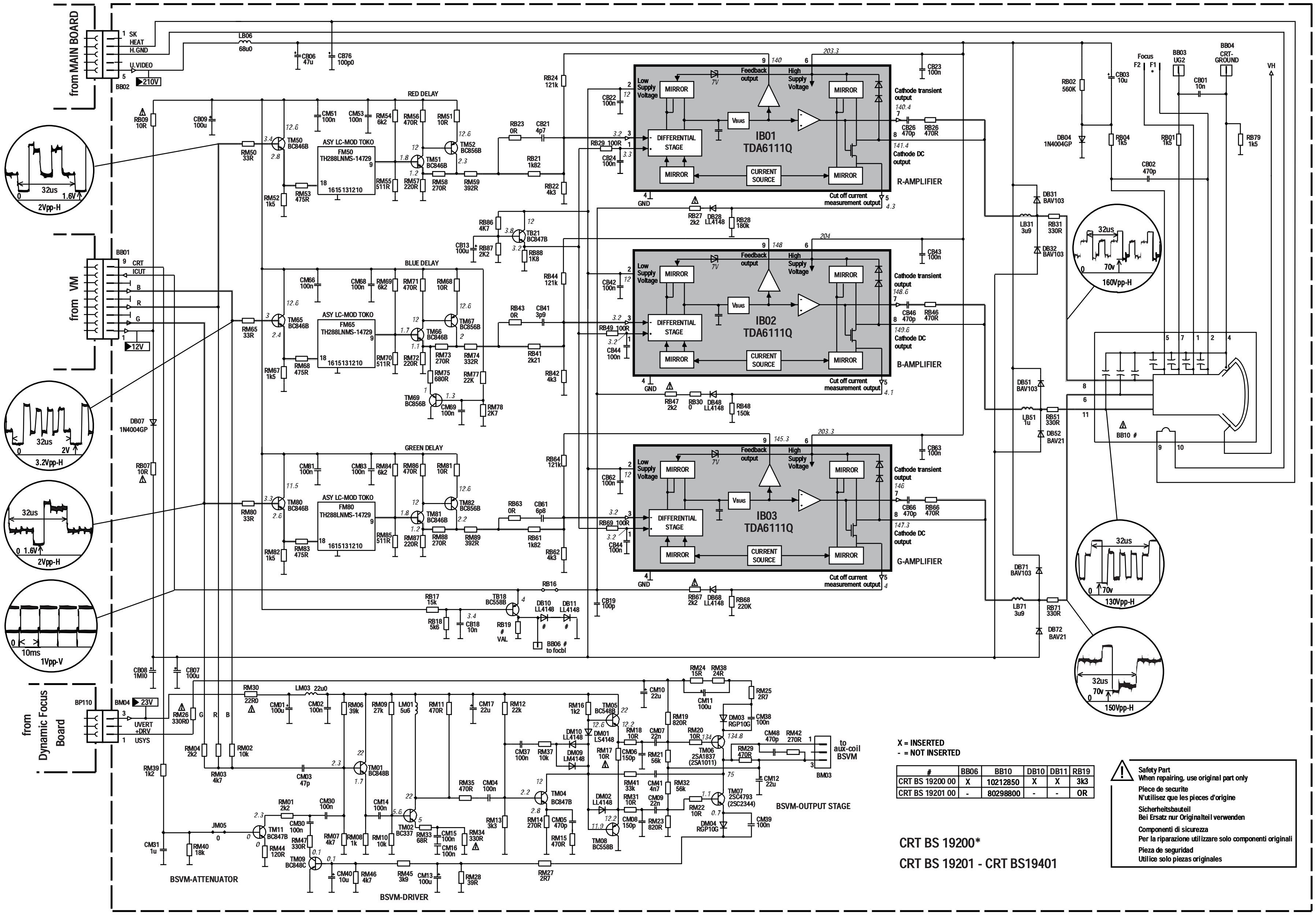
AM/DP 19500 00
10643460
RS682
TS681
RS683
RS684
RS284
CS450
RS288
RS285
DS681
RS681
RS352
DS682
CS681
TS405
RS289
DS405
CS461
CS460
CS408
CS463
RS287
RS408
RS406
RS407
CS452
RS286
CS703
CS704
RS706
RS212
CS282
RS728
RS272
RS271
CS281
RS727
DS251
DS250
CS266
CS265
RS241
RS240
JS721
CS262
CS662
CS661
CS107
CS106
CS104
CS105
RS152
JS720
RD010
RD009
RD008
JS997
RS151
JS999
JS998
RS221
RS220
CS221
RS222
RS223
CD006
RD007
RS100
CS100
JS996
RD011
JD001
RD001
DD011
CS101
CS231
RD005
RS700
RS729
CS701
RS702
JD002
RS233
RS232
RS231
RS230
LS082
CS706
TS723
RS171
TS721
TS720
TS724
RS722
RS172
RS207
TS722
RS730
CS002
CS001
JS661
RS723
RS724
LS081
RS206
CS167
RS203
RS202
LS052
CS069
RS720
RS726
RS725
LS055
RS068
CS162
CS166
CS150
LS056
RS067
CS151
RS065
CS165
CS164
CS153
LS057
RS066
CS155
CS013
RS061
CS102
LS058
LS059
CS066
CS058
RS402
RS292
RS052
CS363
RS400
CS399
CS352
DS400
RS401
CS398
CS400
CS361
RS291
RS283
TS400
RS282
CS396
RS398
RS053
RS162
LS060
LS053
RS054
CS368
RS399
CS364
RS281
RS553
RS561
RS161
LS054
JS500
JS990
JS992
CS354
RS290
RS280
RS397
JS993
JS991
CS358
CS397
RS550
RS552
RS560
RS562
RS563
RS551
CS451
CS550
CS552
CS560
CS562
CS359
CS459
CS469
1

VIDEO AMPLIFIER BOARD - PLATINE AMPLIFICATEURS VIDEO - VIDEOVERSTÄRKERPLATTE - PIASTRA AMPLIFICATORE VIDEO - PLATINA AMPLIFICADOR VIDEO
CRTBS19200 - CRTBS19201 - CRT BS19401


from MAIN BOARD
SK
HEAT
H.GND
U.VIDEO
210V
BB02
from VM
BB01
CRT
ICUT
B
R
G
12V
from Dynamic Focus Board
BP110
BM04
23V
UVERT
+DRV
USYS
RED DELAY
BLUE DELAY
GREEN DELAY
ASY LC-MOD TOKO
FM50
FM65
FM80
TH288LNMS-14729
1615131210
IB01 TDA6111Q
IB02 TDA6111Q
IB03 TDA6111Q
Low Supply Voltage
MIRROR
DIFFERENTIAL STAGE
Feedback output
High Supply Voltage
VBIAS
CURRENT SOURCE
Cathode transient output
Cathode DC output
Cut off current measurement output
GND
R-AMPLIFIER
B-AMPLIFIER
G-AMPLIFIER
Focus
F2 F1
BB03 UG2
BB04 CRT-GROUND
VH
BB10
BB06 to focbl
BSVM-ATTENUATOR
BSVM-DRIVER
BSVM-OUTPUT STAGE
to aux-coil BSVM
BM03
32us
1.6V
2Vpp-H
2V
3.2Vpp-H
10ms
1Vpp-V
70v
160Vpp-H
130Vpp-H
150Vpp-H

X = INSERTED
- = NOT INSERTED

#	BB06	BB10	DB10	DB11	RB19
CRT BS 19200 00	X	10212850	X	X	3k3
CRT BS 19201 00	-	80298800	-	-	OR

CRT BS 19200*

CRT BS 19201 - CRT BS19401

⚠ **Safety Part**
When repairing, use original part only

Piece de securite
N'utilisez que les pieces d'origine

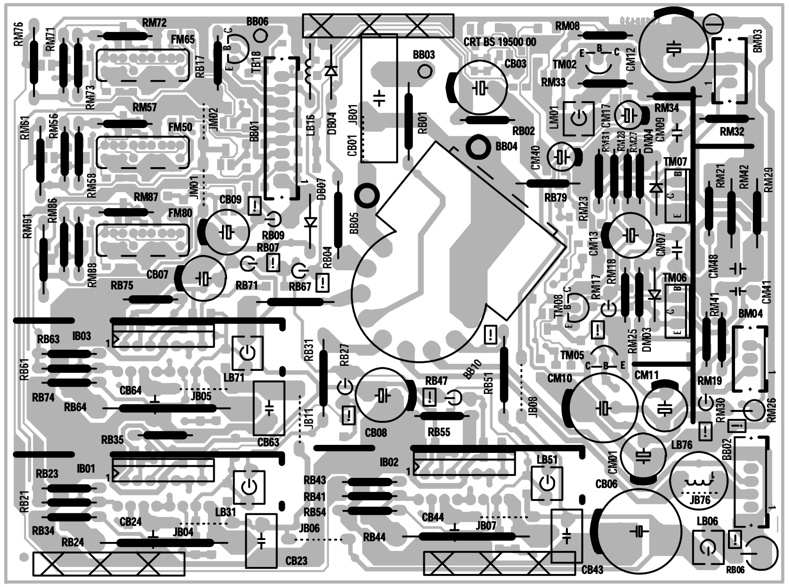
Sicherheitsbauteil
Bei Ersatz nur Originalteil verwenden

Componenti di sicurezza
Per la riparazione utilizzare solo componenti originali

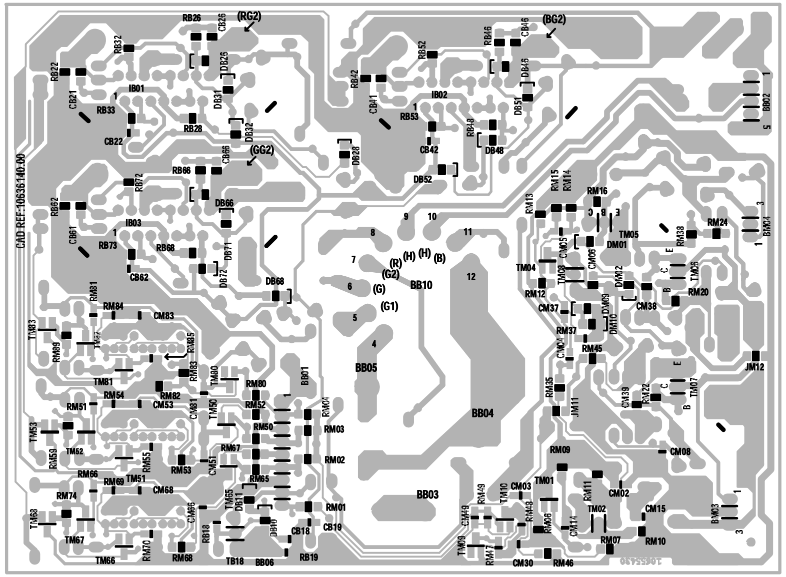
Pieza de seguridad
Utilice solo piezas originales

CRT BS 19500

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

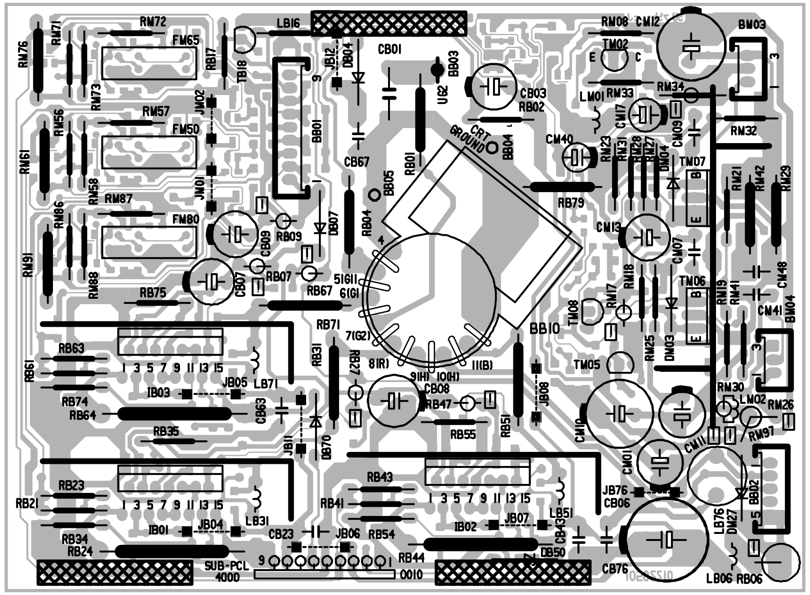

CRT BS 19500 00

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

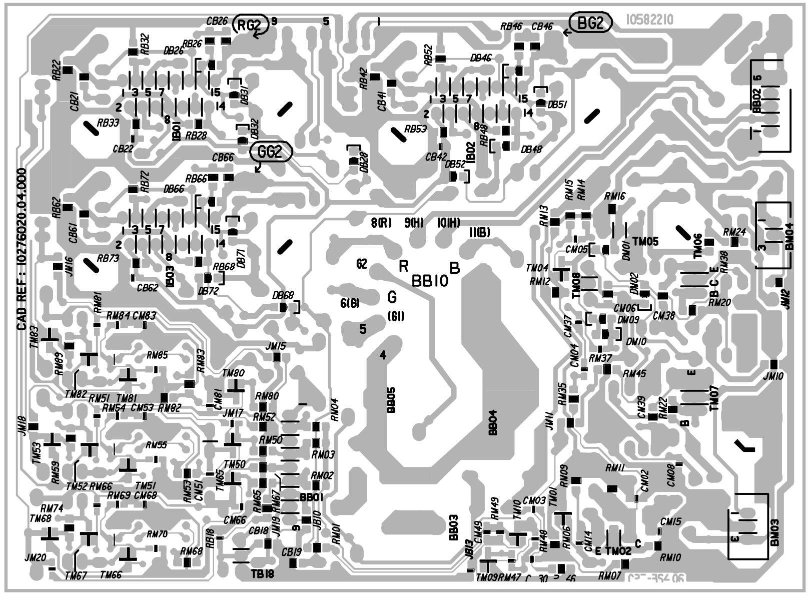

CAD REF:10635140.00

CRT BS 19400

COMPONENT SIDE - CÔTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES

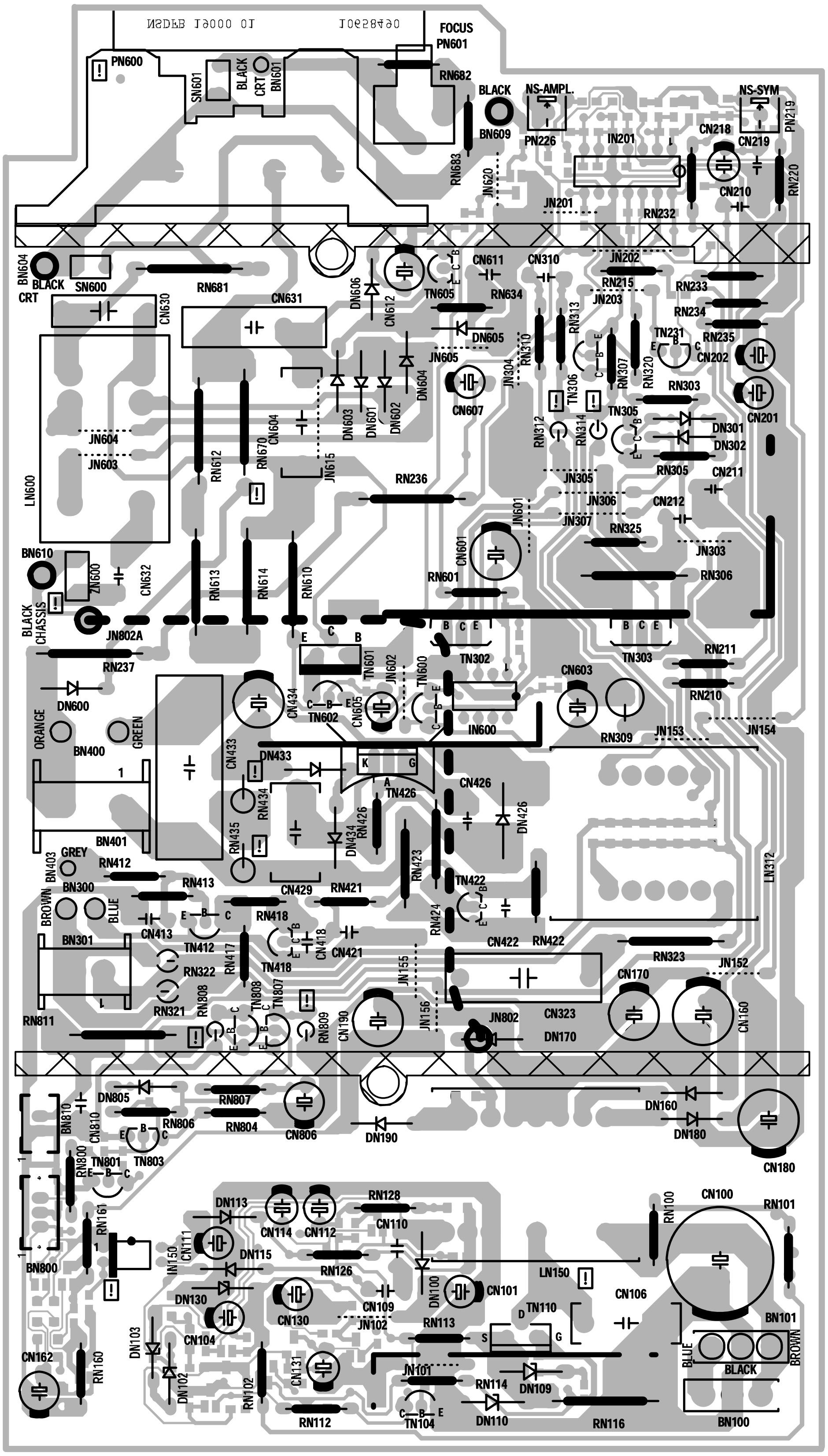

SUB-PCL
4000

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


10582210
CAD REF : 10276020.04.000

NSDFB 19500

COMPONENT SIDE - CÖTE COMPOSANTS - BESTÜCKUNGSSEITE -
LATO COMPONENTI - LADO COMPONENTES


FOCUS
PN601
PN600
SN601
BLACK
CRT
BN601
RN682
BLACK
BN609
NS-AMPL.
PN226
IN201
NS-SYM
CN218
CN219
PN219
RN683
JN620
CN210
RN220
JN201
RN232
BN604
BLACK
CRT
SN600
RN681
CN630
CN631
DN606
CN612
TN605
CN611
RN634
CN310
JN202
RN215
JN203
RN233
RN234
DN605
RN313
TN231
RN235
CN202
JN605
RN310
RN307
RN320
JN304
DN603
DN601
DN602
DN604
CN607
TN306
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RN312
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DN301
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RN305
CN211
LN600
RN236
JN305
JN306
CN212
JN307
JN601
RN325
JN303
CN601
RN601
RN306
BN610
ZN600
CN632
RN613
RN614
RN610
BLACK
CHASSIS
JN802A
E
C
B
B C E
TN302
B C E
TN303
RN211
RN237
TN601
JN602
TN600
CN603
RN210
DN600
CN434
TN602
CN605
IN600
ORANGE
BN400
GREEN
RN309
JN153
JN154
CN433
DN433
K
G
A
TN426
CN426
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RN434
RN426
DN426
RN435
DN434
BN401
GREY
BN403
RN412
RN423
TN422
LN312
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CN429
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BROWN
BLUE
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TN412
RN418
CN418
CN421
RN424
CN422
RN422
BN301
RN322
RN417
TN418
RN323
JN152
JN155
CN170
RN321
RN808
TN808
TN807
RN809
CN190
JN156
JN802
CN323
CN160
RN811
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DN805
RN807
DN160
BN810
CN810
RN806
RN804
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DN190
DN180
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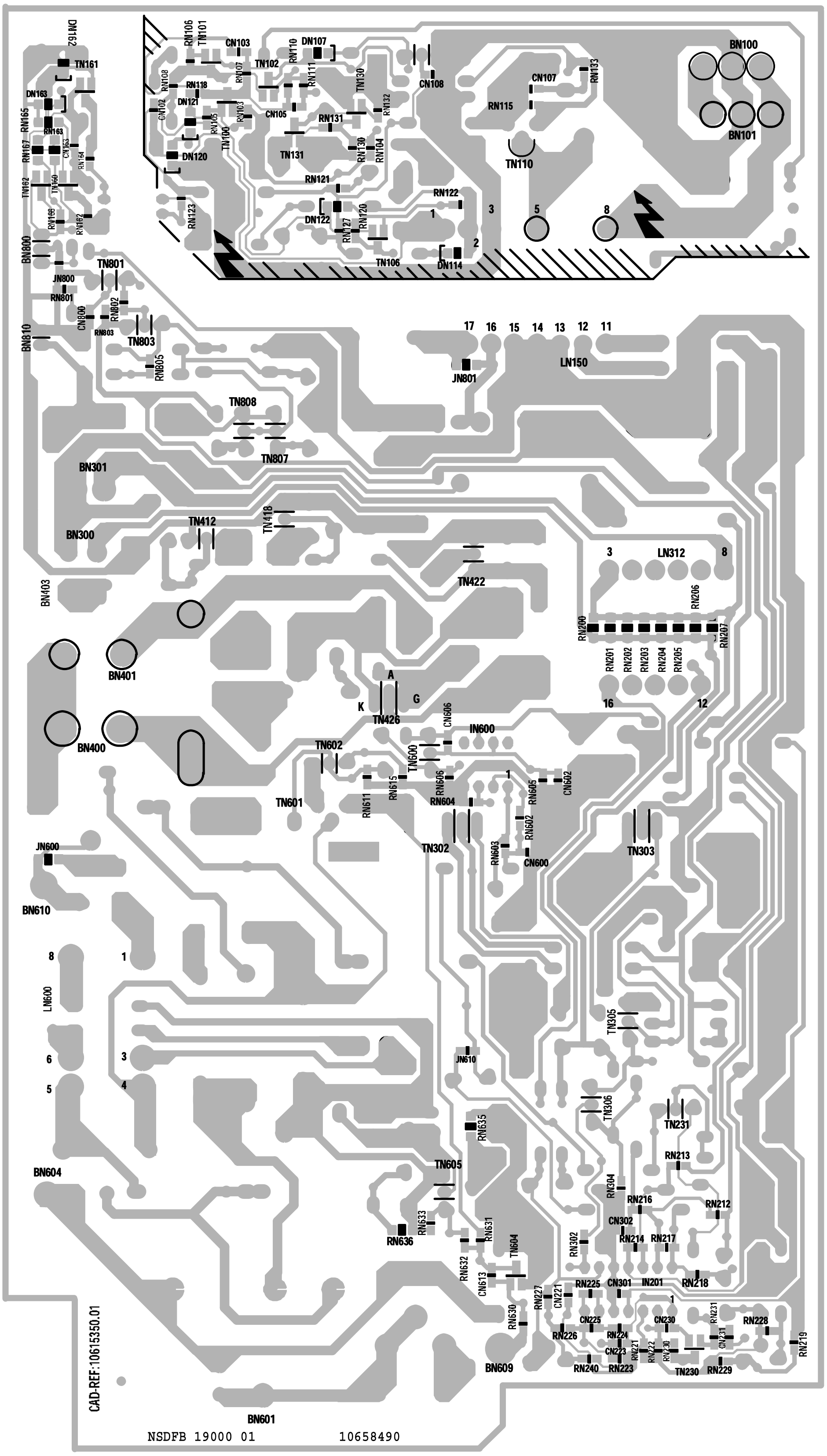
TN803
RN800
CN180
DN113
CN114
CN112
RN128
CN100
RN100
RN101
RN161
CN111
CN110
IN150
DN115
BN800
RN126
LN150
DN130
CN109
DN100
CN101
TN110
CN106
CN130
JN102
RN113
BN101
DN103
CN104
D
S
G
CN162
RN160
DN102
RN102
CN131
JN101
RN114
DN109
BLUE
BLACK
BROWN
TN104
DN110
RN112
RN116
BN100

NSDFB 19500

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


DN162
TN161
DN163
RN165
RN163
RN167
CN163
RN164
TN162
TN160
RN166
RN162
RN106
TN101
CN103
DN107
RN110
RN108
RN118
TN102
RN107
RN111
CN102
DN121
RN105
RN103
CN105
TN130
RN132
CN108
CN107
RN133
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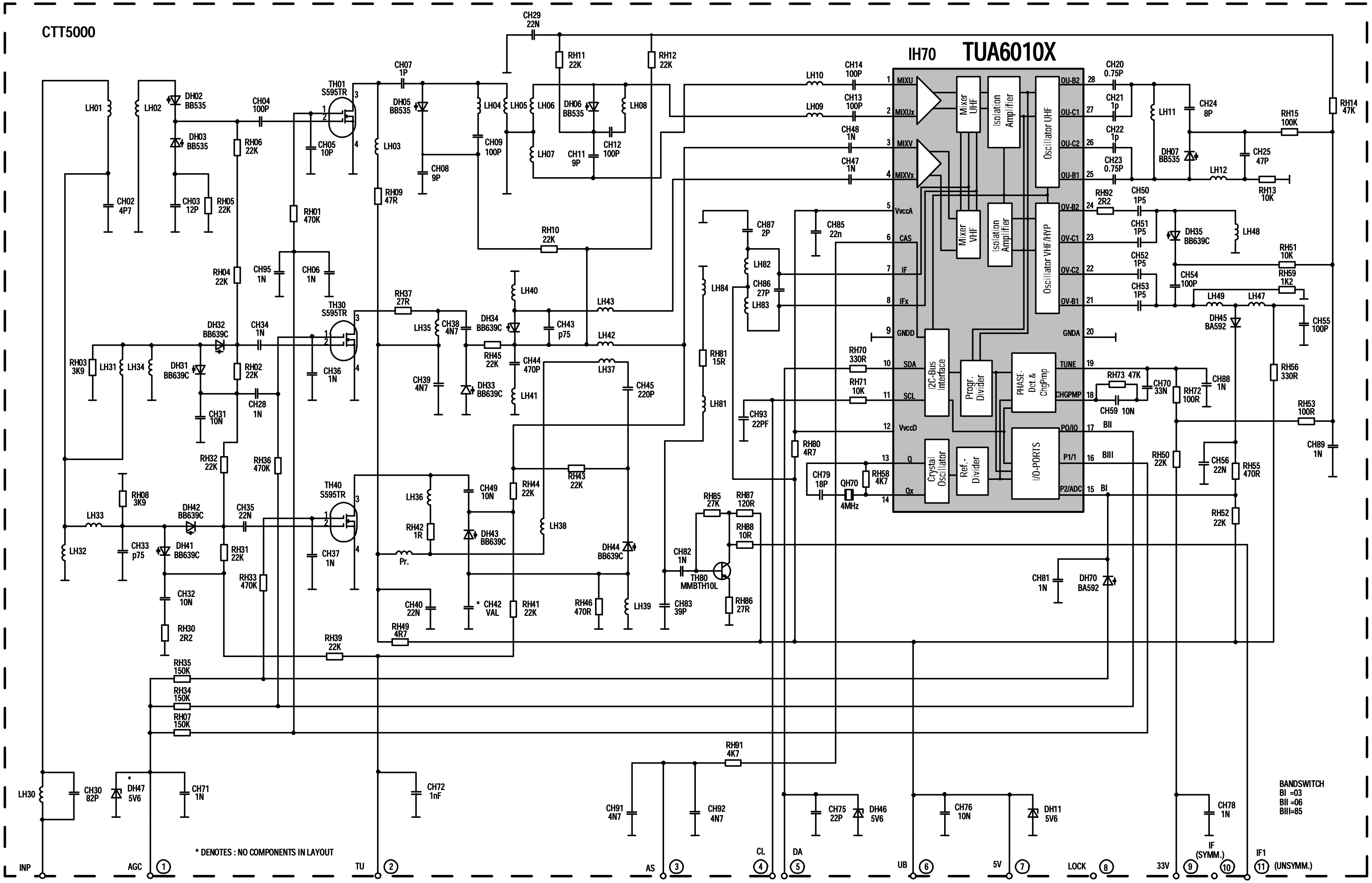
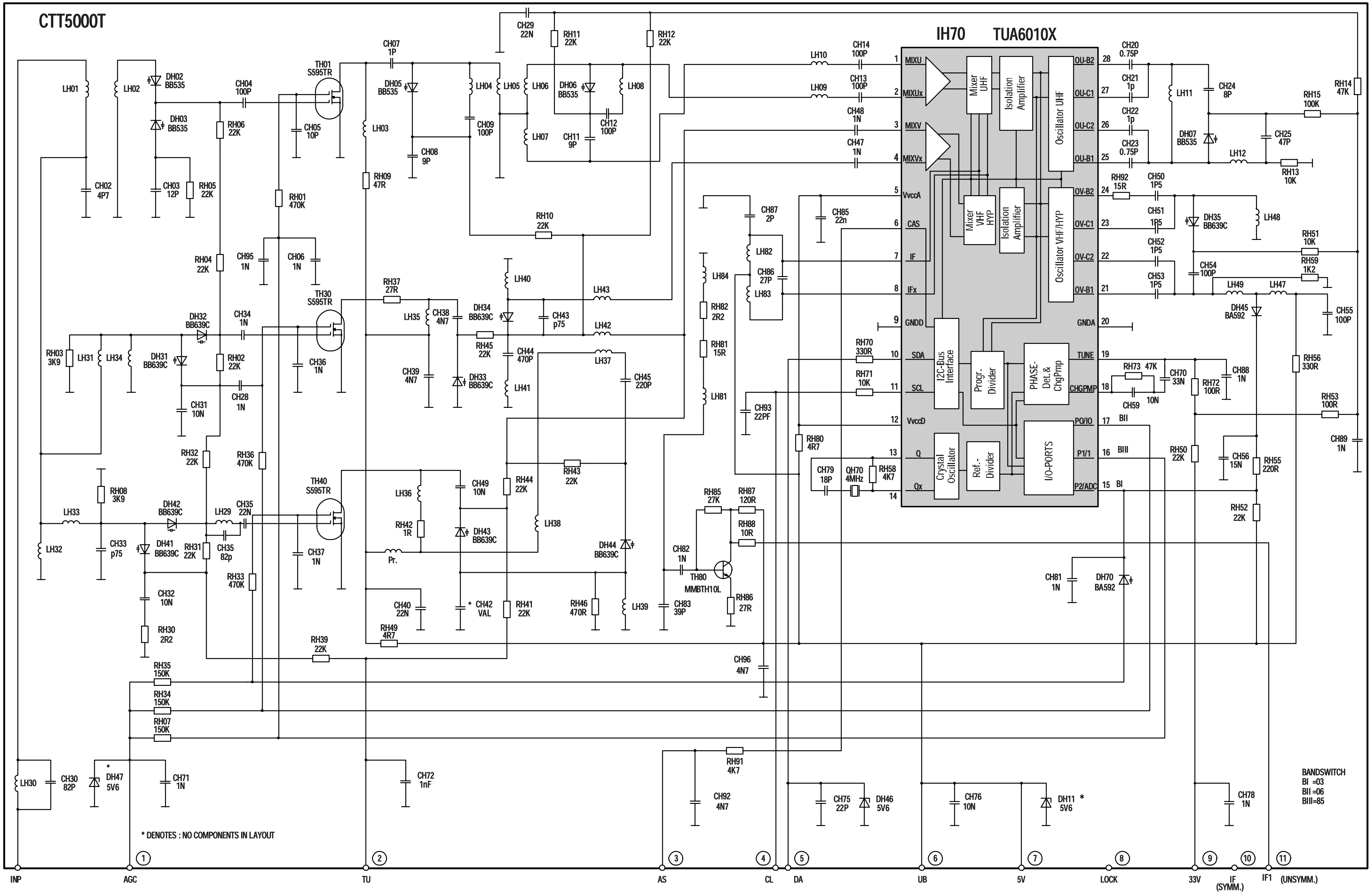
BN101
TN100
DN120
RN131
TN131
RN130
RN104
TN110
RN121
RN123
DN122
RN127
RN120
RN122
1
2
3
5
8
TN106
DN114
BN800
TN801
JN800
RN801
CN800
RN802
RN803
TN803
BN810
RN805
17
16
15
14
13
12
11
JN801
LN150
TN808
TN807
BN301
TN412
TN418
BN300
3
LN312
8
TN422
BN403
RN206
RN200
RN207
RN201
RN202
RN203
RN204
RN205
16
12
BN401
A
K
G
TN426
CN606
IN600
BN400
TN602
TN600
RN606
1
RN605
CN602
TN601
RN611
RN615
RN604
RN602
TN302
RN603
CN600
TN303
JN600
BN610
8
1
LN600
6
3
5
4
TN305
JN610
TN306
TN231
RN635
RN213
BN604
TN605
RN304
RN216
RN212
CN302
RN633
RN631
RN636
RN302
RN214
RN217
TN604
RN632
CN613
RN227
CN221
RN225
CN301
IN201
RN218
1
RN630
CN225
CN230
RN231
RN226
RN224
RN228
CN223
RN221
RN222
RN230
CN231
RN219
BN609
RN240
RN223
TN230
RN229
CAD-REF:10615350.01
BN601
NSDFB 19000 01
10658490

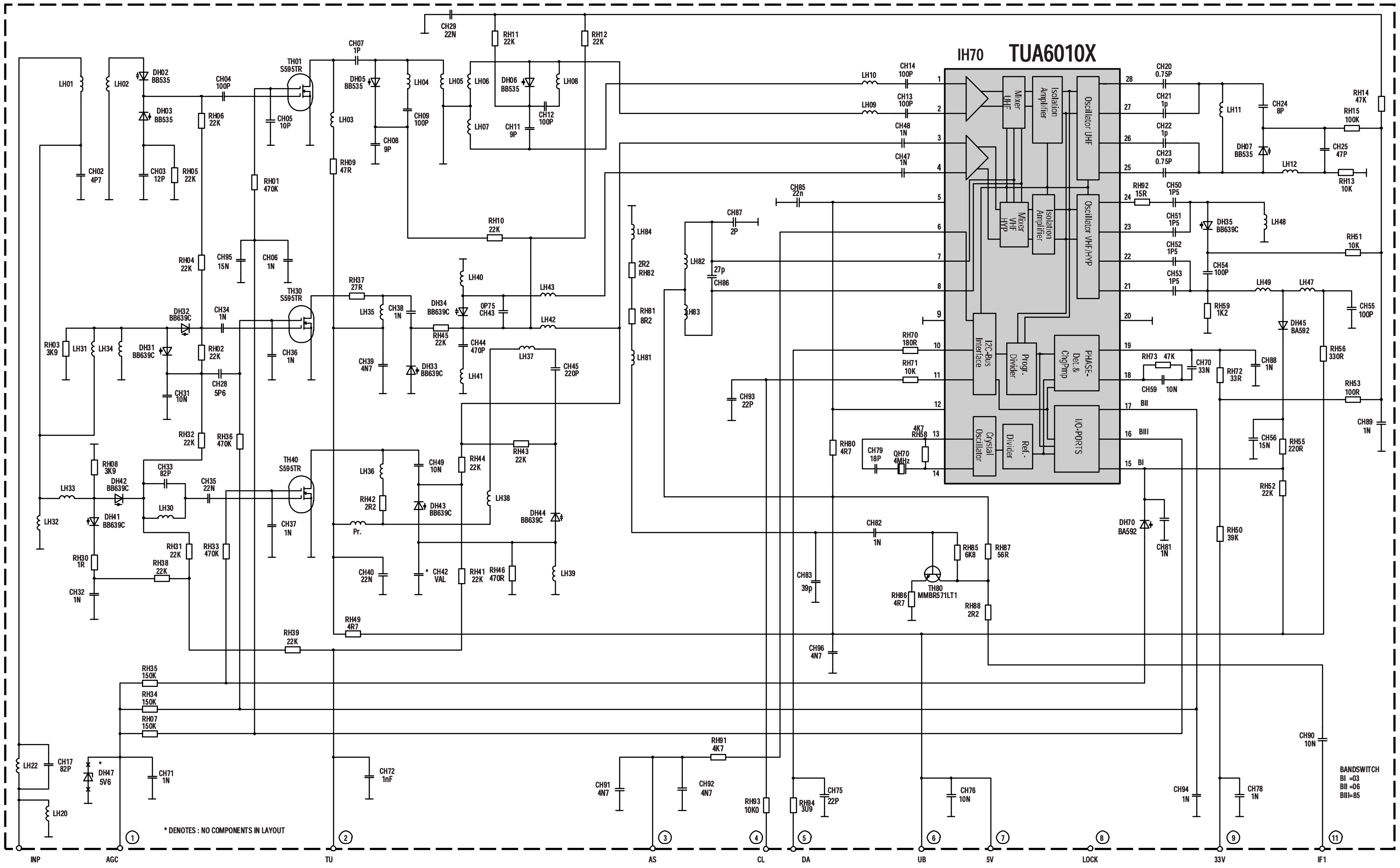
VHF / UHF TUNER CTT5000 (For information only)


CTT5000
IH70
TUA6010X
MIXU
MIXUx
MIXV
MIXVx
VccA
CAS
IF
IFx
GNDD
SDA
SCL
VccD
Q
Qx
OU-B2
OU-C1
OU-C2
OU-B1
OV-B2
OV-C1
OV-C2
OV-B1
GNDA
TUNE
CHGPMP
PO/IO
P1/1
P2/ADC
Mixer UHF
Isolation Amplifier
Oscillator UHF
Mixer VHF
Oscillator VHF/HYP
I2C-Bus Interface
Progr. Divider
PHASE-Dct.& ChgPmp
Crystal Oscillator
Ref.- Divider
I/O-PORTS
TH01 S595TR
TH30 S595TR
TH40 S595TR
TH80 MMBTH10L
QH70 4MHz
CH29 22N
RH11 22K
RH12 22K
CH07 1P
RH14 47K
RH15 100K
RH13 10K
CH20 0.75P
CH21 1p
CH22 1p
CH23 0.75P
CH24 8P
CH25 47P
DH07 BB535
LH11
LH12
DH02 BB535
DH03 BB535
DH05 BB535
DH06 BB535
CH04 100P
CH05 10P
CH08 9P
CH09 100P
CH11 9P
CH12 100P
CH02 4P7
CH03 12P
RH05 22K
RH06 22K
RH01 470K
RH09 47R
RH10 22K
RH04 22K
CH95 1N
CH06 1N
DH32 BB639C
CH34 1N
RH02 22K
DH31 BB639C
RH03 3K9
CH31 10N
CH28 1N
CH36 1N
RH37 27R
CH38 4N7
DH34 BB639C
RH45 22K
CH43 p75
CH44 470P
CH39 4N7
DH33 BB639C
LH43
LH42
LH37
CH45 220P
LH40
LH41
RH32 22K
RH36 470K
RH08 3K9
DH42 BB639C
CH35 22N
CH33 p75
DH41 BB639C
RH31 22K
RH33 470K
CH37 1N
CH32 10N
RH30 2R2
CH49 10N
RH44 22K
RH43 22K
DH43 BB639C
RH42 1R
LH38
DH44 BB639C
CH40 22N
CH42 VAL
RH41 22K
RH46 470R
LH39
RH49 4R7
RH39 22K
RH35 150K
RH34 150K
RH07 150K
CH14 100P
CH13 100P
CH48 1N
CH47 1N
CH85 22n
CH87 2P
CH86 27P
LH82
LH83
LH84
RH81 15R
LH81
CH93 22PF
RH70 330R
RH71 10K
RH80 4R7
CH79 18P
RH58 4K7
RH85 27K
RH87 120R
RH88 10R
CH82 1N
CH83 39P
RH86 27R
RH92 2R2
CH50 1P5
CH51 1P5
CH52 1P5
CH53 1P5
DH35 BB639C
LH48
RH51 10K
RH59 1K2
CH54 100P
LH49
LH47
DH45 BA592
CH55 100P
RH56 330R
RH73 47K
CH70 33N
CH59 10N
RH72 100R
CH88 1N
RH53 100R
CH89 1N
RH50 22K
CH56 22N
RH55 470R
RH52 22K
CH81 1N
DH70 BA592
BII
BIII
BI
LH30
CH30 82P
DH47 5V6
CH71 1N
CH72 1nF
RH91 4K7
CH91 4N7
CH92 4N7
CH75 22P
DH46 5V6
CH76 10N
DH11 5V6
CH78 1N
* DENOTES : NO COMPONENTS IN LAYOUT
BANDSWITCH
BI =03
BII =06
BIII=85
INP
AGC ①
TU ②
AS ③
CL ④
DA ⑤
UB ⑥
5V ⑦
LOCK ⑧
33V ⑨
IF (SYMM.) ⑩
IF1 ⑪ (UNSYMM.)

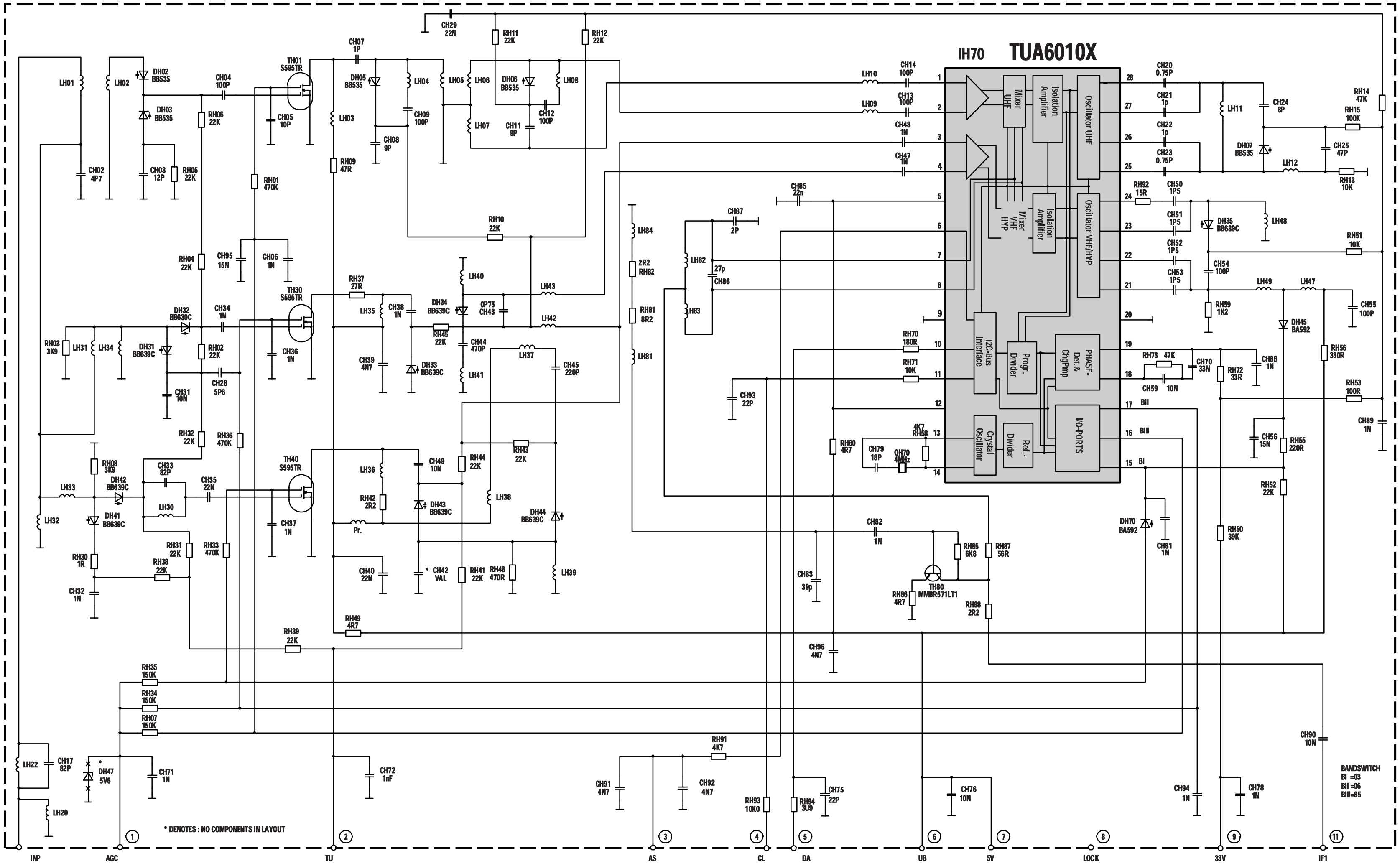
VHF / UHF TUNER CTT5000T (For information only)


CTT5000T
IH70 TUA6010X
MIXU
MIXUx
MIXV
MIXVx
VccA
CAS
IF
IFx
GNDD
SDA
SCL
VccD
Q
Qx
OU-B2
OU-C1
OU-C2
OU-B1
OV-B2
OV-C1
OV-C2
OV-B1
GNDA
TUNE
CHGPMP
PO/IO
P1/1
P2/ADC
Mixer UHF
Isolation Amplifier
Oscillator UHF
Mixer VHF HYP
Oscillator VHF/HYP
I2C-Bus Interface
Progr. Divider
PHASE-Det.& ChgPmp
Crystal Oscillator
Ref.-Divider
I/O-PORTS
TH01 S595TR
TH30 S595TR
TH40 S595TR
TH80 MMBTH10L
QH70 4MHz
DH02 BB535
DH03 BB535
DH05 BB535
DH06 BB535
DH07 BB535
DH31 BB639C
DH32 BB639C
DH33 BB639C
DH34 BB639C
DH35 BB639C
DH41 BB639C
DH42 BB639C
DH43 BB639C
DH44 BB639C
DH45 BA592
DH70 BA592
DH46 5V6
DH47 5V6
DH11 5V6
CH02 4P7
CH03 12P
CH04 100P
CH05 10P
CH06 1N
CH07 1P
CH08 9P
CH09 100P
CH11 9P
CH12 100P
CH13 100P
CH14 100P
CH20 0.75P
CH21 1p
CH22 1p
CH23 0.75P
CH24 8P
CH25 47P
CH28 1N
CH29 22N
CH30 82P
CH31 10N
CH32 10N
CH33 p75
CH34 1N
CH35 22N
CH35 82p
CH36 1N
CH37 1N
CH38 4N7
CH39 4N7
CH40 22N
CH42 VAL
CH43 p75
CH44 470P
CH45 220P
CH47 1N
CH48 1N
CH49 10N
CH50 1P5
CH51 1P5
CH52 1P5
CH53 1P5
CH54 100P
CH55 100P
CH56 15N
CH59 10N
CH70 33N
CH71 1N
CH72 1nF
CH75 22P
CH76 10N
CH78 1N
CH79 18P
CH81 1N
CH82 1N
CH83 39P
CH85 22n
CH86 27P
CH87 2P
CH88 1N
CH89 1N
CH92 4N7
CH93 22PF
CH95 1N
CH96 4N7
RH01 470K
RH02 22K
RH03 3K9
RH04 22K
RH05 22K
RH06 22K
RH07 150K
RH08 3K9
RH09 47R
RH10 22K
RH11 22K
RH12 22K
RH13 10K
RH14 47K
RH15 100K
RH30 2R2
RH31 22K
RH32 22K
RH33 470K
RH34 150K
RH35 150K
RH36 470K
RH37 27R
RH39 22K
RH41 22K
RH42 1R
RH43 22K
RH44 22K
RH45 22K
RH46 470R
RH49 4R7
RH50 22K
RH51 10K
RH52 22K
RH53 100R
RH55 220R
RH56 330R
RH58 4K7
RH59 1K2
RH70 330R
RH71 10K
RH72 100R
RH73 47K
RH80 4R7
RH81 15R
RH82 2R2
RH85 27K
RH86 27R
RH87 120R
RH88 10R
RH91 4K7
RH92 15R
LH01
LH02
LH03
LH04
LH05
LH06
LH07
LH08
LH09
LH10
LH11
LH12
LH29
LH30
LH31
LH32
LH33
LH34
LH35
LH36
LH37
LH38
LH39
LH40
LH41
LH42
LH43
LH47
LH48
LH49
LH81
LH82
LH83
LH84
Pr.
BI
BII
BIII
* DENOTES : NO COMPONENTS IN LAYOUT
BANDSWITCH
BI =03
BII =06
BIII=85
① INP
AGC
② TU
③ AS
④ CL
⑤ DA
⑥ UB
⑦ 5V
⑧ LOCK
⑨ 33V
⑩ IF (SYMM.)
⑪ IF1 (UNSYMM.)

VHF / UHF TUNER CTT5010 (For information only)

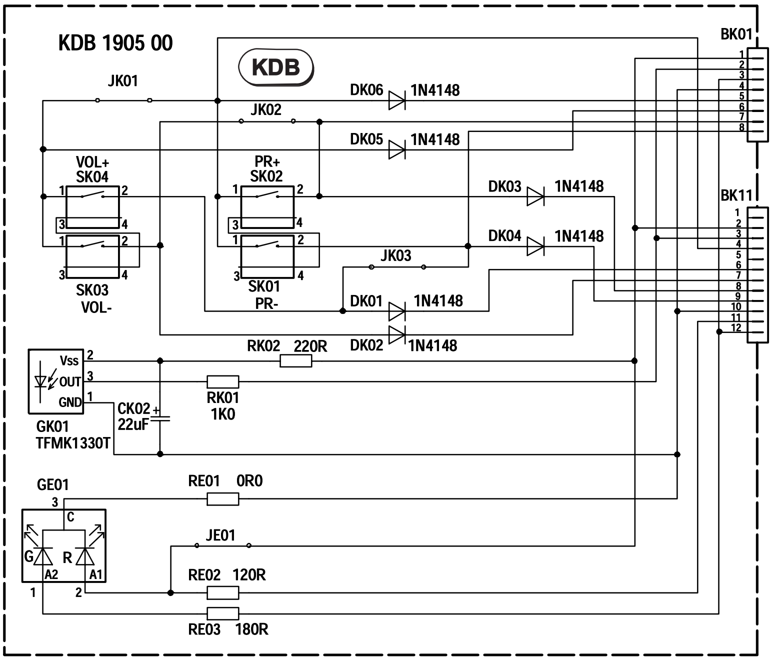

IH70
TUA6010X
Mixer UHF
Isolation Amplifier
Oscillator UHF
Mixer VHF HYP
Isolation Amplifier
Oscillator VHF/HYP
I2C-Bus Interface
Progr. Divider
PHASE-Det. & ChgPmp
Crystal Oscillator
Ref.-Divider
I/O-PORTS
TH01 S595TR
TH30 S595TR
TH40 S595TR
TH80 MMBR571LT1
QH70 4MHz
DH02 BB535
DH03 BB535
DH05 BB535
DH06 BB535
DH07 BB535
DH31 BB639C
DH32 BB639C
DH33 BB639C
DH34 BB639C
DH35 BB639C
DH41 BB639C
DH42 BB639C
DH43 BB639C
DH44 BB639C
DH45 BA592
DH70 BA592
DH47 5V6
CH29 22N
RH11 22K
RH12 22K
CH07 1P
CH04 100P
CH05 10P
CH09 100P
CH08 9P
CH11 9P
CH12 100P
CH02 4P7
CH03 12P
RH05 22K
RH06 22K
RH01 470K
RH09 47R
RH10 22K
RH04 22K
CH95 15N
CH06 1N
RH37 27R
CH34 1N
CH38 1N
RH45 22K
CH44 470P
OP75 CH43
RH03 3K9
RH02 22K
CH36 1N
CH28 5P6
CH31 10N
CH39 4N7
RH32 22K
RH36 470K
RH08 3K9
CH33 82P
CH35 22N
CH49 10N
RH44 22K
RH43 22K
CH45 220P
RH42 2R2
Pr.
CH37 1N
RH30 1R
CH32 1N
RH38 22K
RH31 22K
RH33 470K
CH40 22N
* CH42 VAL
RH41 22K
RH46 470R
RH49 4R7
RH39 22K
RH35 150K
RH34 150K
RH07 150K
CH17 82P
CH71 1N
CH72 1nF
* DENOTES : NO COMPONENTS IN LAYOUT
CH14 100P
CH13 100P
CH48 1N
CH47 1N
CH85 22n
CH87 2P
27p CH86
2R2 RH82
RH81 8R2
RH70 180R
RH71 10K
CH93 22P
4K7 RH58
CH79 18P
RH80 4R7
CH82 1N
RH85 6K8
RH87 56R
CH83 39p
RH86 4R7
RH88 2R2
CH96 4N7
RH91 4K7
CH91 4N7
CH92 4N7
RH93 10K0
RH94 3U9
CH75 22P
CH76 10N
CH20 0.75P
CH21 1p
CH22 1p
CH23 0.75P
CH24 8P
CH25 47P
RH14 47K
RH15 100K
RH13 10K
RH92 15R
CH50 1P5
CH51 1P5
CH52 1P5
CH53 1P5
CH54 100P
RH51 10K
RH59 1K2
CH55 100P
RH56 330R
RH73 47K
CH70 33N
CH59 10N
RH72 33R
CH88 1N
RH53 100R
CH89 1N
CH56 15N
RH55 220R
RH52 22K
RH50 39K
CH81 1N
CH90 10N
CH94 1N
CH78 1N
BI
BII
BIII
BANDSWITCH
BI =03
BII =06
BIII=85
LH01 LH02 LH03 LH04 LH05 LH06 LH07 LH08 LH09 LH10 LH11 LH12
LH20 LH22 LH30 LH31 LH32 LH33 LH34 LH35 LH36 LH37 LH38 LH39 LH40 LH41 LH42 LH43
LH47 LH48 LH49 LH81 LH82 LH83 LH84
① INP AGC
② TU
③ AS
④ CL
⑤ DA
⑥ UB
⑦ 5V
⑧ LOCK
⑨ 33V
⑪ IF1

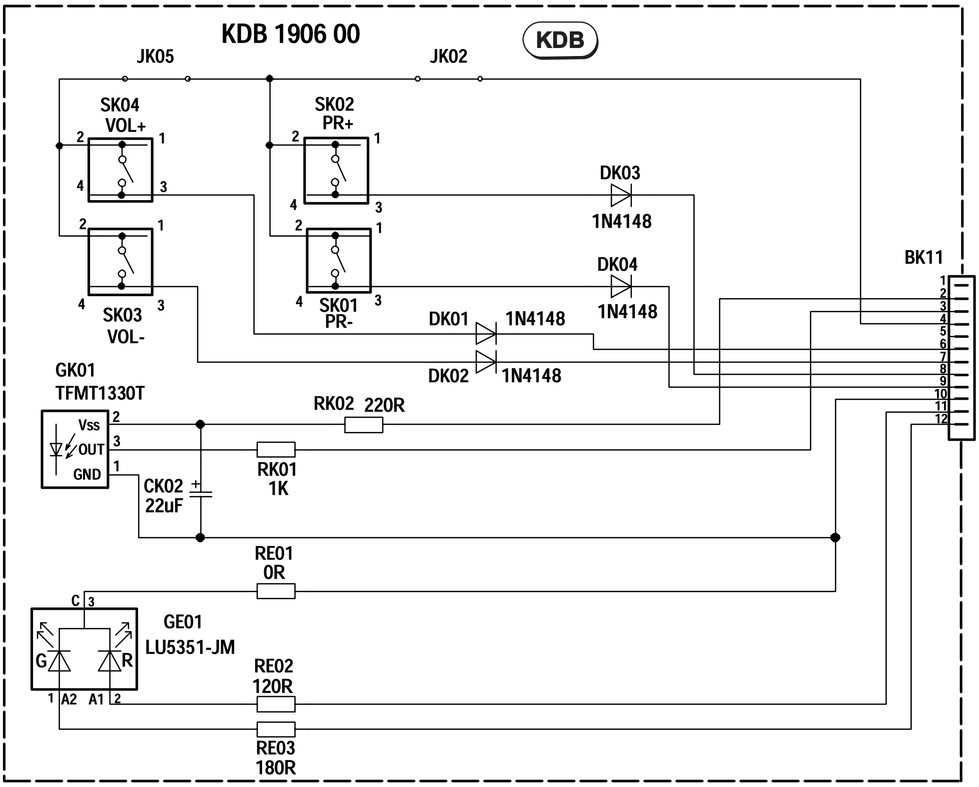
VHF / UHF TUNER CTT5010 (For information only)


IH70
TUA6010X
Mixer UHF
Isolation Amplifier
Oscillator UHF
Mixer VHF HYP
Isolation Amplifier
Oscillator VHF/HYP
I2C-Bus Interface
Progr. Divider
PHASE-Det. & ChgPmp
Crystal Oscillator
Ref.-Divider
I/O-PORTS
TH01 S595TR
TH30 S595TR
TH40 S595TR
TH80 MMBR571LT1
QH70 4MHz
DH02 BB535
DH03 BB535
DH05 BB535
DH06 BB535
DH07 BB535
DH31 BB639C
DH32 BB639C
DH33 BB639C
DH34 BB639C
DH35 BB639C
DH41 BB639C
DH42 BB639C
DH43 BB639C
DH44 BB639C
DH45 BA592
DH70 BA592
DH47 5V6
CH29 22N
RH11 22K
RH12 22K
CH07 1P
CH04 100P
CH05 10P
CH08 9P
CH09 100P
CH11 9P
CH12 100P
CH02 4P7
CH03 12P
RH05 22K
RH06 22K
RH01 470K
RH09 47R
RH10 22K
CH14 100P
CH13 100P
CH48 1N
CH47 1N
CH85 22n
CH87 2P
CH86 27p
CH20 0.75P
CH21 1p
CH22 1p
CH23 0.75P
CH24 8P
CH25 47P
RH14 47K
RH15 100K
RH13 10K
RH92 15R
CH50 1P5
CH51 1P5
CH52 1P5
CH53 1P5
CH54 100P
RH51 10K
RH59 1K2
CH55 100P
RH56 330R
RH53 100R
CH89 1N
RH73 47K
CH70 33N
CH59 10N
RH72 33R
CH88 1N
CH56 15N
RH55 220R
RH52 22K
RH50 39K
CH81 1N
RH70 180R
RH71 10K
CH93 22P
RH58 4K7
CH79 18P
RH80 4R7
CH82 1N
RH85 6K8
RH87 56R
RH86 4R7
RH88 2R2
CH83 39p
CH96 4N7
RH04 22K
CH95 15N
CH06 1N
RH03 3K9
CH34 1N
RH02 22K
CH31 10N
CH28 5P6
CH36 1N
RH37 27R
CH38 1N
CH39 4N7
RH45 22K
0P75 CH43
CH44 470P
CH45 220P
RH32 22K
RH36 470K
RH08 3K9
CH33 82P
CH35 22N
CH37 1N
RH42 2R2
CH49 10N
RH44 22K
RH43 22K
RH31 22K
RH33 470K
RH30 1R
RH38 22K
CH32 1N
CH40 22N
CH42 VAL
RH41 22K
RH46 470R
RH49 4R7
RH39 22K
RH35 150K
RH34 150K
RH07 150K
RH91 4K7
RH81 8R2
2R2 RH82
CH17 82P
CH71 1N
CH72 1nF
CH91 4N7
CH92 4N7
RH93 10K0
RH94 3U9
CH75 22P
CH76 10N
CH94 1N
CH78 1N
CH90 10N
LH01 LH02 LH03 LH04 LH05 LH06 LH07 LH08 LH09 LH10 LH11 LH12
LH20 LH22 LH30 LH31 LH32 LH33 LH34 LH35 LH36 LH37 LH38 LH39 LH40 LH41 LH42 LH43 LH47 LH48 LH49
LH81 LH82 LH83 LH84
Pr.
BI BII BIII
BANDSWITCH
BI =03
BII =06
BIII=85
* DENOTES : NO COMPONENTS IN LAYOUT
INP
AGC
TU
AS
CL
DA
UB
5V
LOCK
33V
IF1

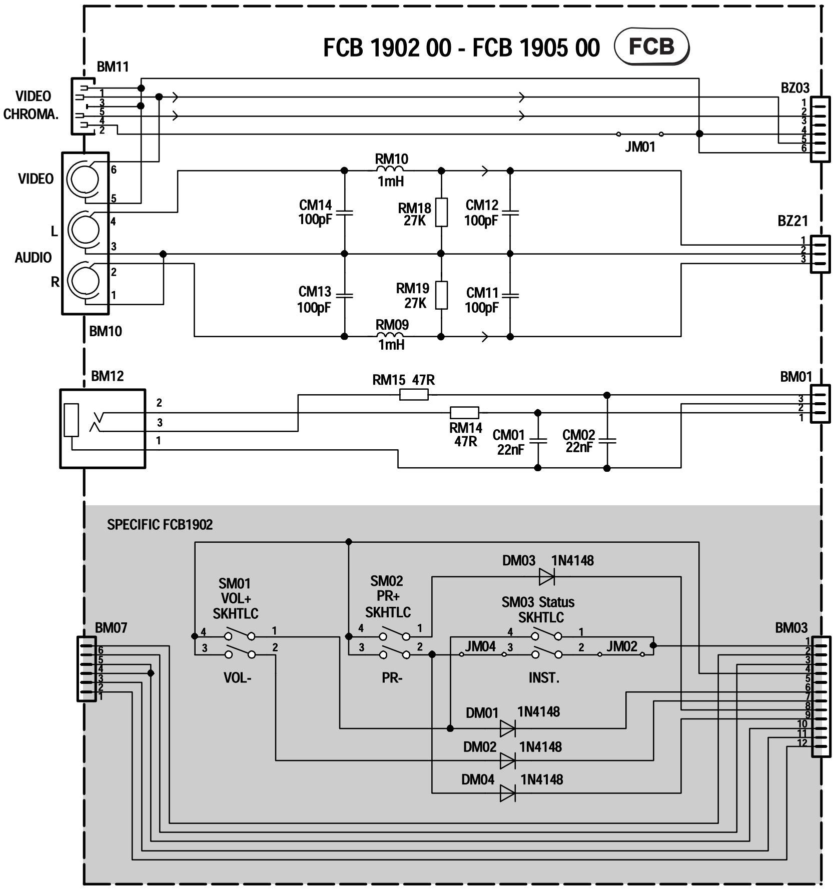
MC-Service

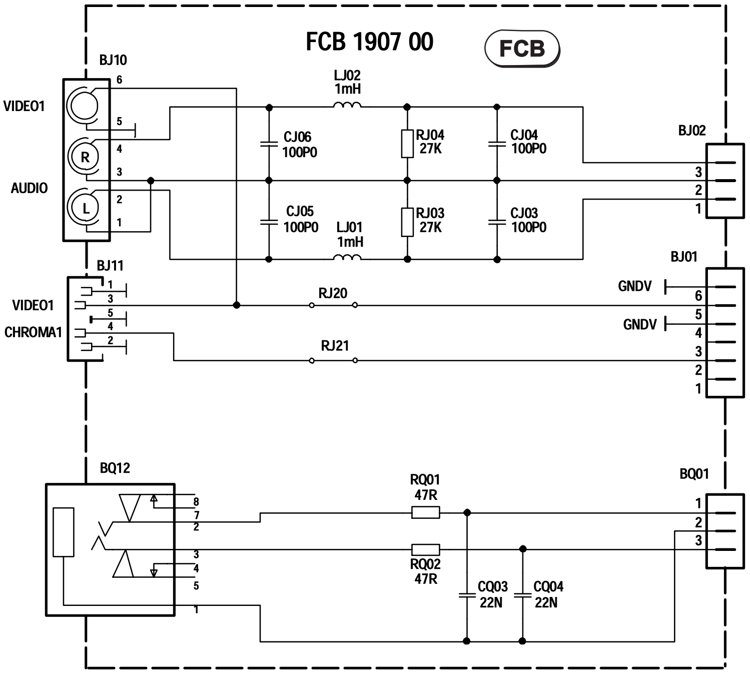
KEYBOARD MODULE - PLATINE CLAVIER - TASTATURPLATTE - PISATRA COMANDI - PLATINA TECLADO


KDB 1905 00
KDB
BK01
JK01
JK02
DK06 1N4148
DK05 1N4148
VOL+ SK04
PR+ SK02
DK03 1N4148
BK11
DK04 1N4148
JK03
SK03 VOL-
SK01 PR-
DK01 1N4148
DK02 1N4148
RK02 220R
Vss
OUT
GND
GK01 TFMK1330T
CK02 22uF
RK01 1K0
GE01
RE01 0R0
C
G
R
A2
A1
JE01
RE02 120R
RE03 180R


KDB 1906 00
KDB
JK05
JK02
SK04 VOL+
SK02 PR+
DK03 1N4148
DK04 1N4148
BK11
SK03 VOL-
SK01 PR-
DK01 1N4148
DK02 1N4148
GK01 TFMT1330T
RK02 220R
Vss
OUT
GND
CK02 22uF
RK01 1K
RE01 0R
GE01 LU5351-JM
C
G
R
A2
A1
RE02 120R
RE03 180R

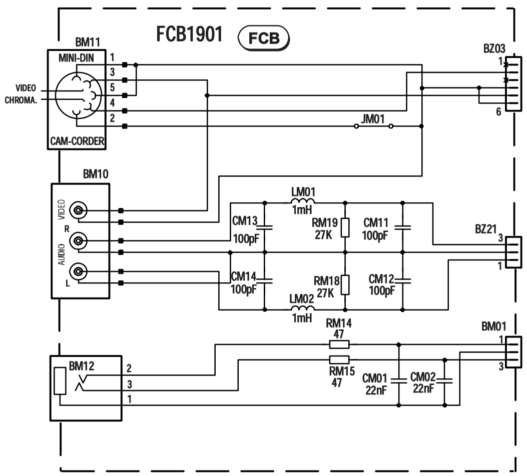
FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL


FCB 1902 00 - FCB 1905 00
FCB
BM11
VIDEO
CHROMA.
BZ03
JM01
VIDEO
L
AUDIO
R
BM10
RM10
1mH
CM14
100pF
RM18
27K
CM12
100pF
BZ21
CM13
100pF
RM19
27K
CM11
100pF
RM09
1mH
BM12
RM15 47R
BM01
RM14
47R
CM01
22nF
CM02
22nF
SPECIFIC FCB1902
DM03 1N4148
SM01
VOL+
SKHTLC
SM02
PR+
SKHTLC
SM03 Status
SKHTLC
BM07
BM03
JM04
JM02
VOL-
PR-
INST.
DM01 1N4148
DM02 1N4148
DM04 1N4148

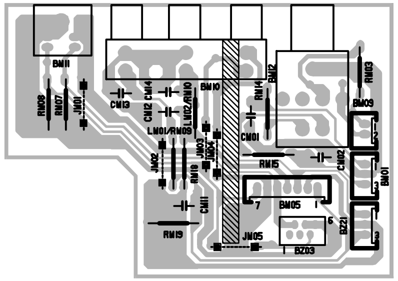

FCB 1907 00
FCB
BJ10
VIDEO1
AUDIO
R
L
LJ02
1mH
CJ06
100P0
RJ04
27K
CJ04
100P0
BJ02
CJ05
100P0
LJ01
1mH
RJ03
27K
CJ03
100P0
BJ01
BJ11
VIDEO1
CHROMA1
RJ20
RJ21
GNDV
GNDV
BQ12
RQ01
47R
BQ01
RQ02
47R
CQ03
22N
CQ04
22N

FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL

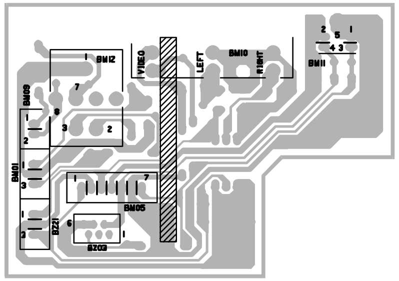
FCB1901


FCB1901
FCB
BM11
MINI-DIN
VIDEO
CHROMA.
CAM-CORDER
JM01
BZ03
BX400
SCI
BM10
VIDEO
AUDIO
R
L
LM01
1mH
CM13
100pF
RM19
27K
CM11
100pF
BZ21
BX401
SCI
CM14
100pF
RM18
27K
CM12
100pF
LM02
1mH
RM14
47
BM01
BM12
RM15
47
CM01
22nF
CM02
22nF
BS03
AM/FM

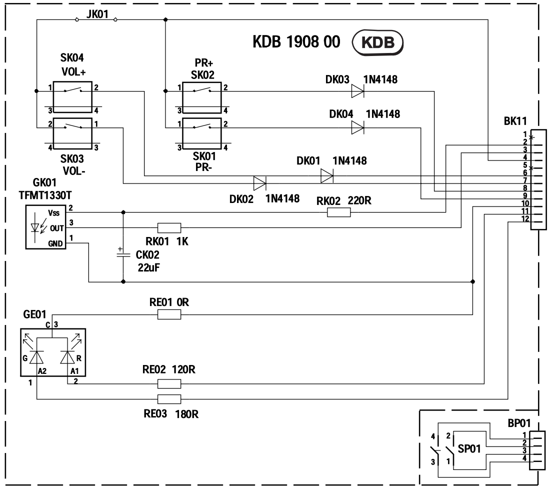
COMPONENT SIDE - COTE COMPOSANTS -
BESTÜCKUNGSSEITE -
LATO COMPONENTI -
LADO COMPONENTES



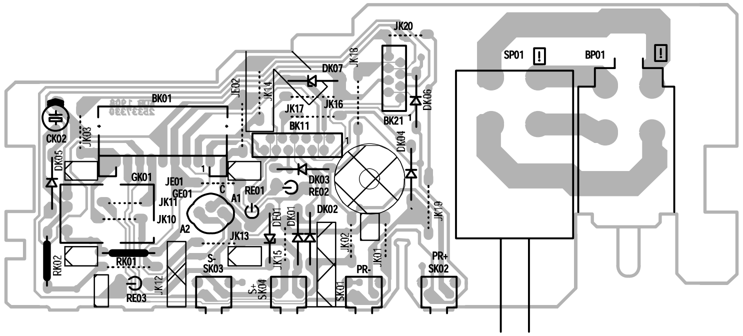
SOLDER SIDE - CÔTE SOUDURES -
LÖTSEITE - LATO SALDATURE -
LADO SOLDADURAS



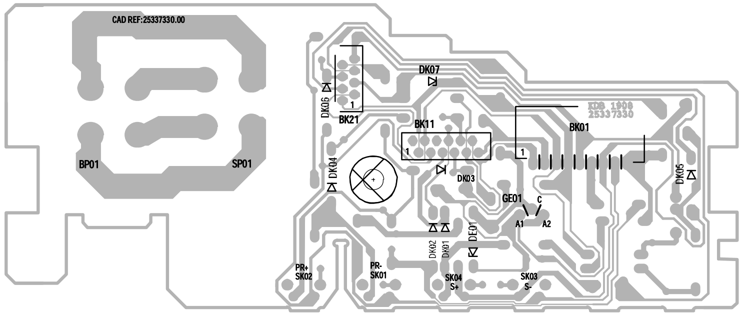
KDB1908


JK01
KDB 1908 00
KDB
SK04
VOL+
PR+
SK02
DK03 1N4148
DK04 1N4148
BK11
SK03
VOL-
SK01
PR-
DK01 1N4148
GK01
TFMT1330T
Vss
OUT
GND
DK02 1N4148
RK02 220R
RK01 1K
CK02
22uF
RE01 0R
GE01
RE02 120R
RE03 180R
BP01
SP01

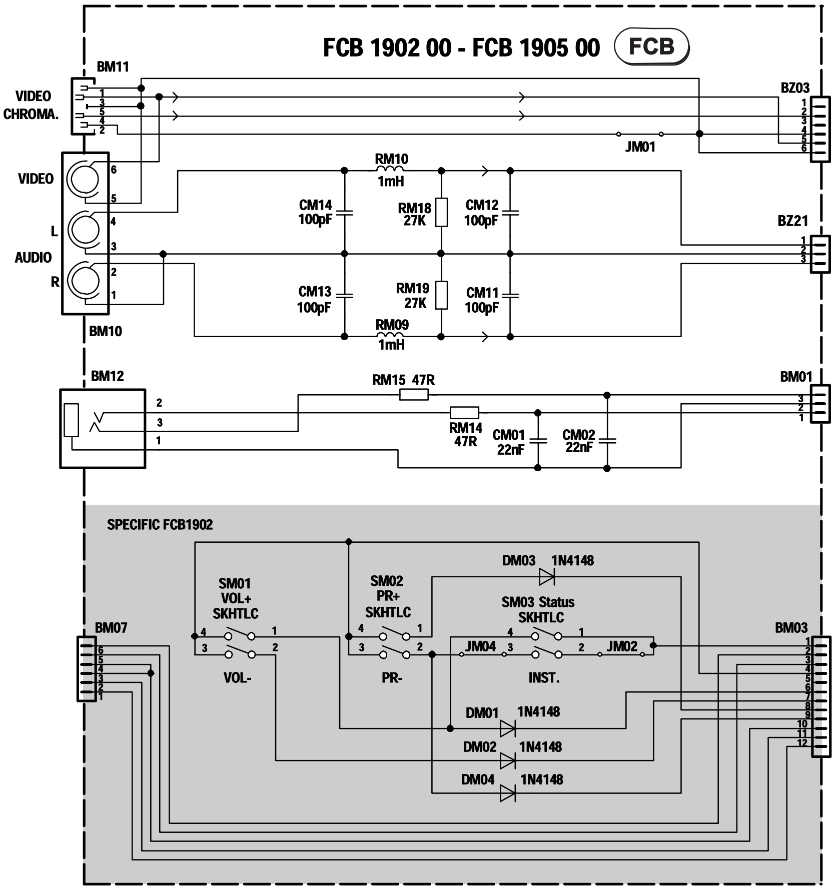
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES

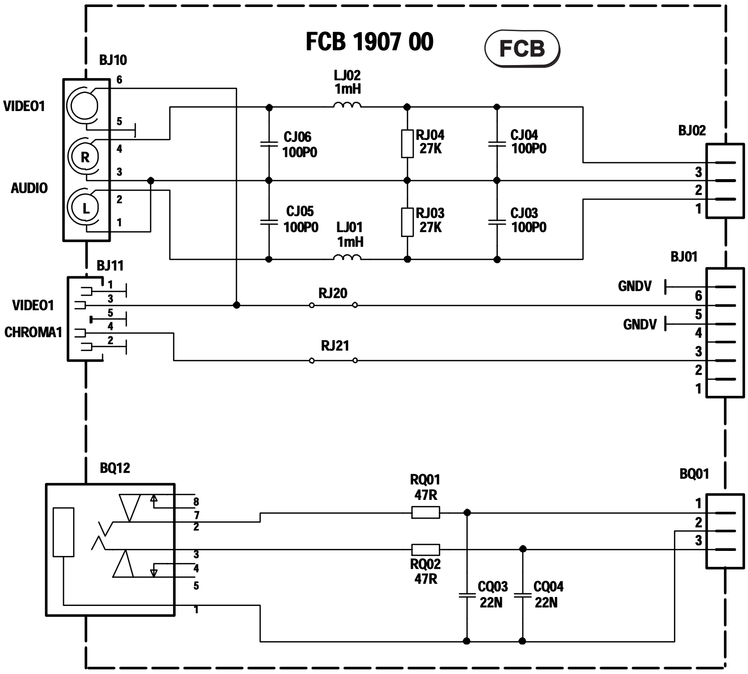


SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



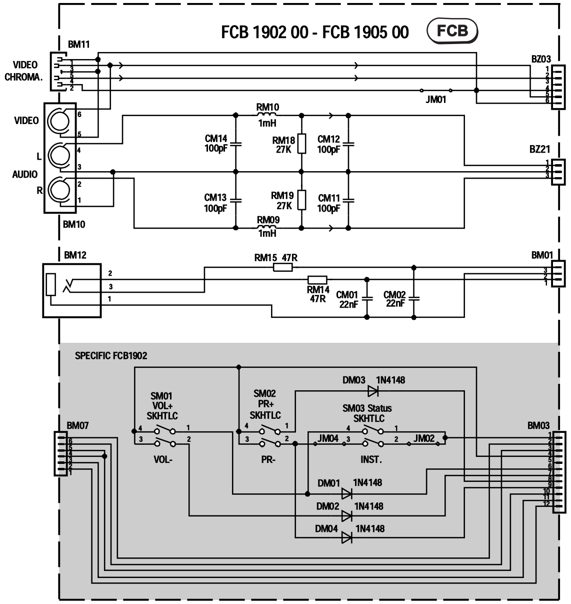
FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL


FCB 1902 00 - FCB 1905 00
FCB
BM11
VIDEO
CHROMA.
BZ03
JM01
VIDEO
L
AUDIO
R
BM10
RM10
1mH
CM14
100pF
RM18
27K
CM12
100pF
BZ21
CM13
100pF
RM19
27K
CM11
100pF
RM09
1mH
BM12
RM15 47R
BM01
RM14
47R
CM01
22nF
CM02
22nF
SPECIFIC FCB1902
DM03 1N4148
SM01
VOL+
SKHTLC
SM02
PR+
SKHTLC
SM03 Status
SKHTLC
BM07
BM03
JM04
JM02
VOL-
PR-
INST.
DM01 1N4148
DM02 1N4148
DM04 1N4148

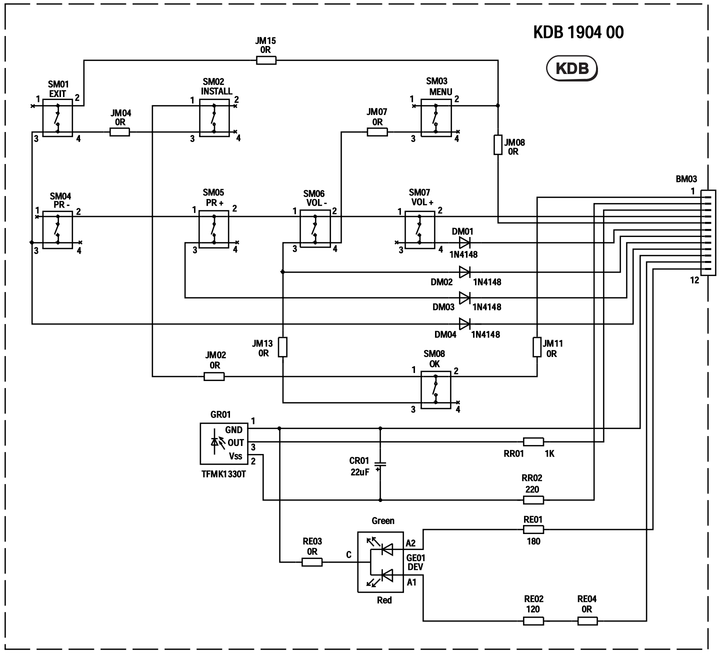

FCB 1907 00
FCB
BJ10
VIDEO1
AUDIO
R
L
LJ02
1mH
CJ06
100P0
RJ04
27K
CJ04
100P0
BJ02
CJ05
100P0
LJ01
1mH
RJ03
27K
CJ03
100P0
BJ11
VIDEO1
CHROMA1
RJ20
RJ21
BJ01
GNDV
GNDV
BQ12
RQ01
47R
RQ02
47R
CQ03
22N
CQ04
22N
BQ01

FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL

FCB1905

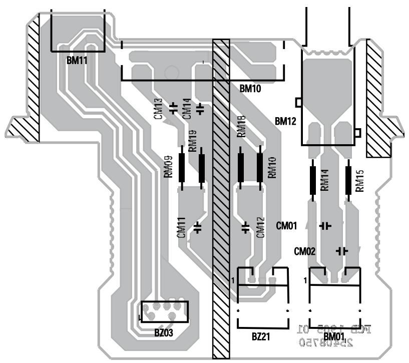

FCB 1902 00 - FCB 1905 00
FCB
BM11
VIDEO
CHROMA.
VIDEO
AUDIO
L
R
BM10
BZ03
BZ21
JM01
RM10 1mH
CM14 100pF
RM18 27K
CM12 100pF
CM13 100pF
RM19 27K
CM11 100pF
RM09 1mH
BM12
RM15 47R
RM14 47R
CM01 22nF
CM02 22nF
BM01
SPECIFIC FCB1902
BM07
SM01 VOL+ SKHTLC
VOL-
SM02 PR+ SKHTLC
PR-
SM03 Status SKHTLC
INST.
JM04
JM02
DM03 1N4148
DM01 1N4148
DM02 1N4148
DM04 1N4148
BM03

KDB1904

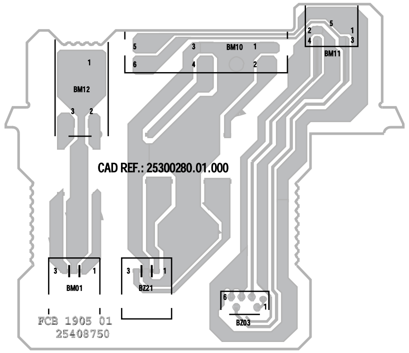

KDB 1904 00
KDB
JM15 0R
SM01 EXIT
JM04 0R
SM02 INSTALL
JM07 0R
SM03 MENU
JM08 0R
BM03
SM04 PR -
SM05 PR +
SM06 VOL -
SM07 VOL +
DM01 1N4148
DM02 1N4148
DM03 1N4148
DM04 1N4148
JM13 0R
JM02 0R
SM08 OK
JM11 0R
GR01
GND
OUT
Vss
TFMK1330T
CR01 22uF
RR01 1K
RR02 220
Green
RE01 180
RE03 0R
GE01 DEV
A2
A1
C
Red
RE02 120
RE04 0R

FCB1905

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI LADO COMPONENTES

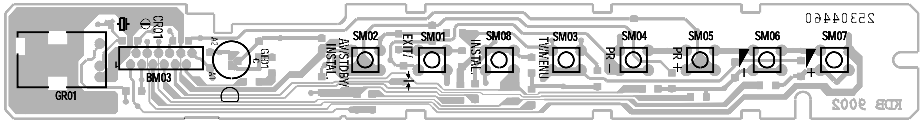

BM11
BM10
BM12
CM13
CM14
RM19
RM18
RM09
RM10
RM14
RM15
CM11
CM12
CM01
CM02
BZ03
BZ21
BM01

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

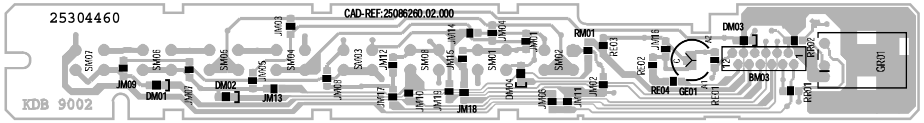

BM10
BM11
BM12
CAD REF.: 25300280.01.000
BM01
BZ21
BZ03
FCB 1905 01
25408750

KDB1904

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI LADO COMPONENTES


25304460
CR01
GE01
BM03
GR01
SM02
SM01
SM08
SM03
SM04
SM05
SM06
SM07
AV/STDBY/ INSTAL.
EXIT
INSTAL.
TV/MENU
PR -
PR +
KDB 9002

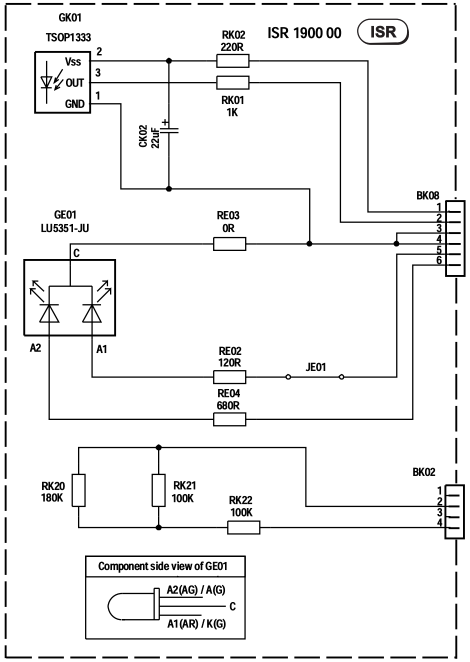
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS


25304460
CAD-REF:25086260.02.000
KDB 9002
JM09
DM01
DM02
JM13
JM18
RM01
DM03
BM03
RE04
GE01
RR01
RR02
GR01

MC-Service

IR RECEIVER - PLATINE RECEPTEUR INFRA-ROUGE - IR EMPFÄNGER - LPTL. PIASTRA RICEVITORE IR - PLATINA RECEPTOR IR

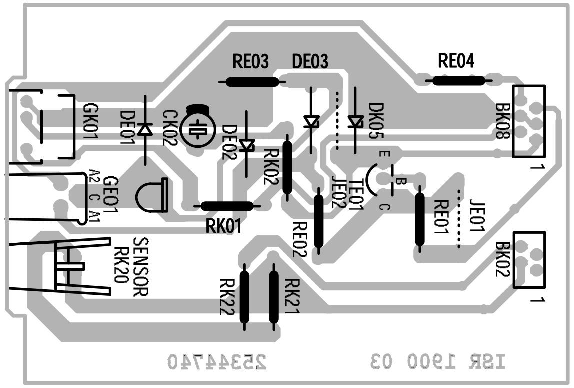
ISR19100



GK01
TSOP1333
Vss
OUT
GND
RK02 220R
RK01 1K
ISR 1900 00
ISR
CK02 22uF
BK08
GE01
LU5351-JU
RE03 0R
C
A2
A1
RE02 120R
JE01
RE04 680R
RK20 180K
RK21 100K
RK22 100K
BK02
Component side view of GE01
A2(AG) / A(G)
C
A1(AR) / K(G)

ISR19100

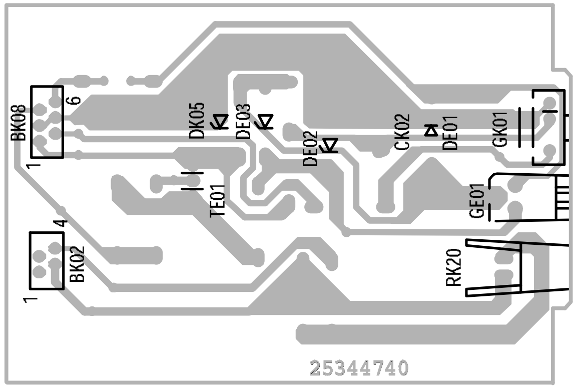
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES



RE03
DE03
RE04
GK01
DE01
CK02
DE02
DK05
BK08
RK02
TE01
JE02
GE01
A2 C A1
RK01
RE02
RE01
JE01
SENSOR RK20
RK22
RK21
BK02
25344740
ISR 1900 03

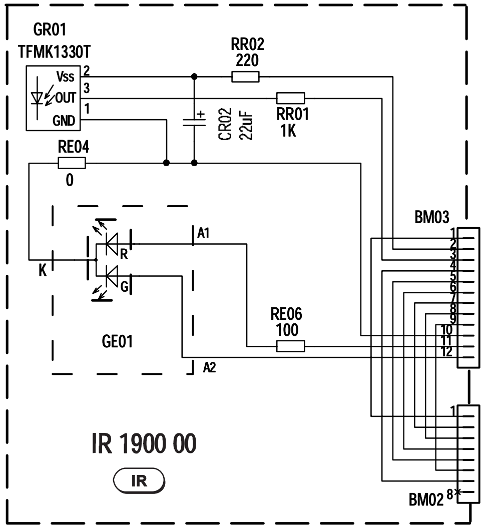
ISR19100

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE
LATO SALDATURE - LADO SOLDADURAS



BK08
DK05
DE03
DE02
CK02
DE01
GK01
TE01
GE01
BK02
RK20
25344740

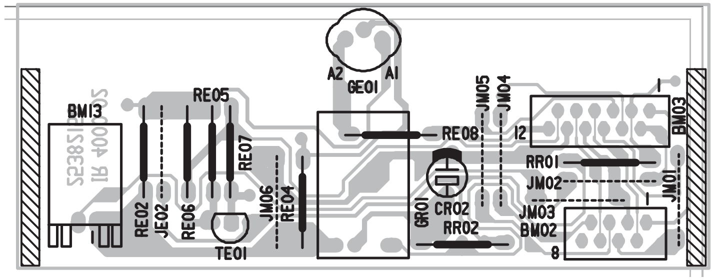
IR1900



GR01
TFMK1330T
Vss
OUT
GND
RR02 220
CR02 22uF
RR01 1K
RE04 0
K
R
G
A1
GE01
RE06 100
A2
BM03
BM02
IR 1900 00
IR

IR1900

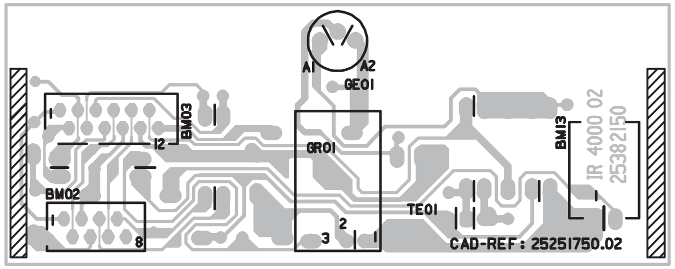
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES



A2
GE01
A1
BM13
RE05
JM05
JM04
BM03
RE08
RR01
JM02
JM01
RE07
RE02
JE02
RE06
JM06
RE04
TE01
GR01
CR02
RR02
JM03
BM02

IR1900

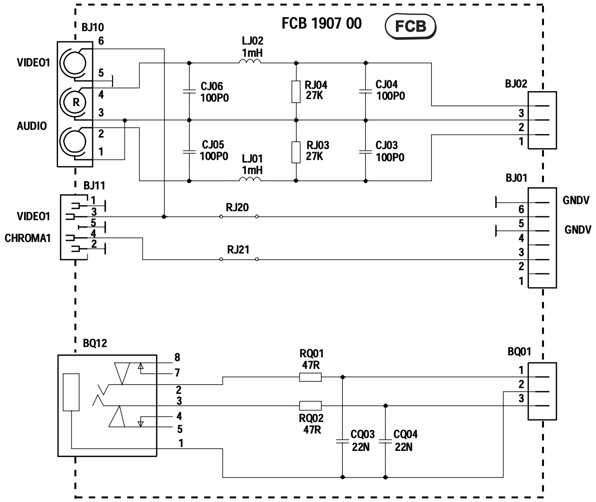
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE
LATO SALDATURE - LADO SOLDADURAS



A1
A2
GE01
BM03
GR01
BM13
IR 4000 02
2538250
BM02
TE01
CAD-REF : 25251750.02

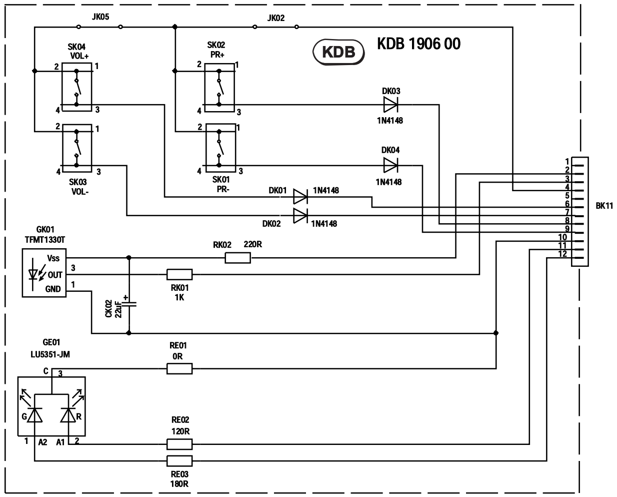
FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL

FCB1907



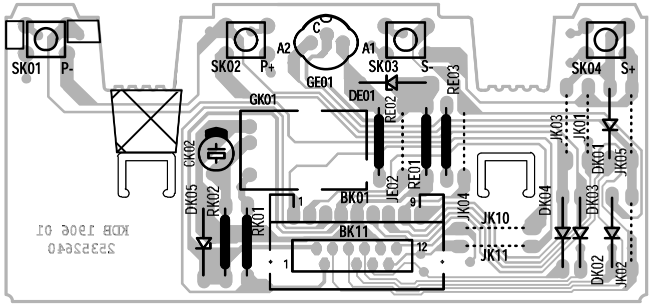
FCB 1907 00
FCB
BJ10
VIDEO1
AUDIO
R
LJ02 1mH
LJ01 1mH
CJ06 100P0
CJ05 100P0
RJ04 27K
RJ03 27K
CJ04 100P0
CJ03 100P0
BJ02
BJ01
GNDV
GNDV
BJ11
VIDEO1
CHROMA1
RJ20
RJ21
BQ12
RQ01 47R
RQ02 47R
CQ03 22N
CQ04 22N
BQ01

KDB1906



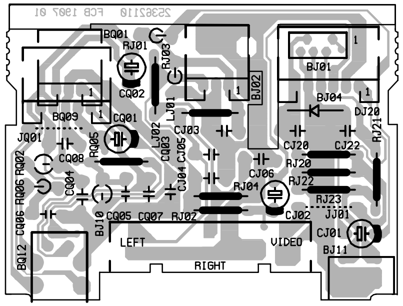
KDB
KDB 1906 00
JK05
JK02
SK04 VOL+
SK03 VOL-
SK02 PR+
SK01 PR-
DK03 1N4148
DK04 1N4148
DK01 1N4148
DK02 1N4148
BK11
GK01 TFMT1330T
Vss
OUT
GND
RK02 220R
RK01 1K
CK02 22µF
GE01 LU5351-JM
RE01 0R
RE02 120R
RE03 180R
A2
A1
G
R
C

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



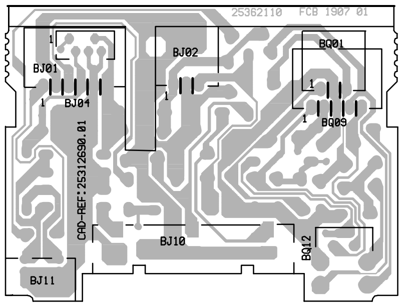
SK01 P-
SK02 P+
GE01
SK03 S-
SK04 S+
DE01
GK01
RE03
RE02
RE01
JE02
CK02
DK05
RK02
RK01
BK01
BK11
JK03
JK01
DK01
JK05
JK04
JK10
JK11
DK04
DK03
DK02
JK02
KDB 1906 01
25352640

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES



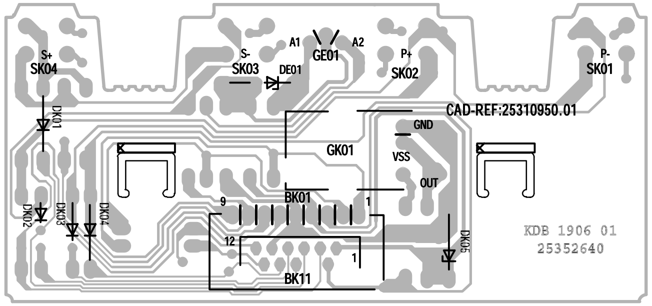
BQ01
RJ01
RJ03
CQ02
BJ02
BJ01
BQ09
CQ01
LJ01
LJ02
BJ04
DJ20
JQ01
RQ05
CQ08
CQ03
CJ05
CJ04
CJ03
CJ20
CJ22
RJ21
RJ20
CJ06
RJ22
RJ04
RJ23
RQ02
RQ06
CQ04
CQ06
BJ10
CQ05
CQ07
RJ02
CJ02
JJ01
CJ01
BJ11
BQ12
LEFT
RIGHT
VIDEO

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



25362110 FCB 1907 01
BJ01
BJ02
BJ04
BQ01
BQ09
CAD-REF:25312690.01
BJ10
BQ12
BJ11

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS

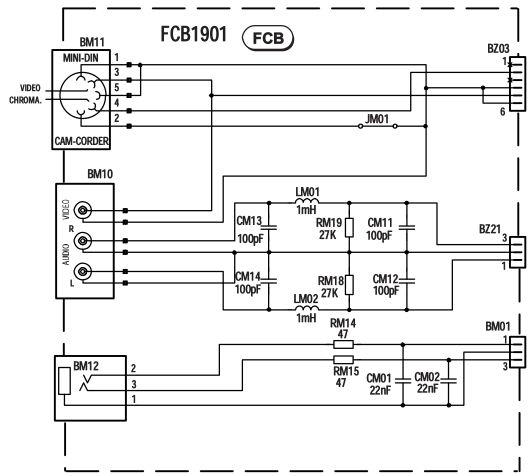


S+
SK04
S-
SK03
DE01
A1
GE01
A2
P+
SK02
P-
SK01
CAD-REF:25310950.01
GND
GK01
VSS
OUT
BK01
BK11
DK01
DK02
DK03
DK04
DK05
KDB 1906 01
25352640

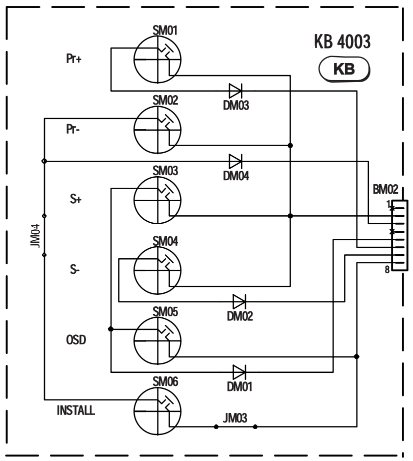
MC-Service

FRONT CONNECTOR BOARD - PRISES EN FACADE ET INTERCONNEXION DU CLAVIER - FRONT ANSCHLUSSPLATTE - PIASTRA CONNESSIONE FRONTALE - PLÁTINA MANDOS FRONTAL

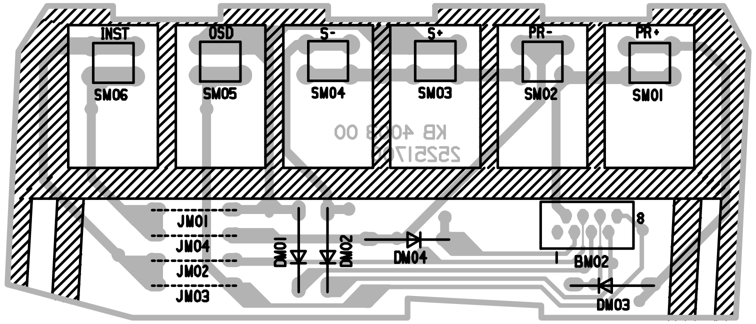
FCB1901


FCB1901
FCB
BM11
MINI-DIN
CAM-CORDER
VIDEO
CHROMA.
1
3
5
4
2
BZ03
BX400
SCI
6
JM01
BM10
VIDEO
AUDIO
R
L
LM01
1mH
CM13
100pF
RM19
27K
CM11
100pF
BZ21
BX401
SCI
3
1
CM14
100pF
RM18
27K
CM12
100pF
LM02
1mH
RM14
47
RM15
47
BM01
BS03
AM/FM
BM12
CM01
22nF
CM02
22nF

KB 4003

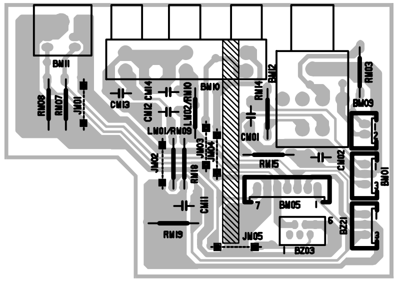

KB 4003
KB
SM01
Pr+
SM02
Pr-
DM03
SM03
S+
DM04
SM04
S-
DM02
SM05
OSD
DM01
SM06
INSTALL
JM03
JM04
BM02
1
8

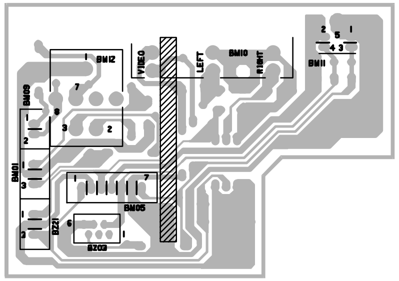
COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI
LADO COMPONENTES


INST
OSD
S-
S+
PR-
PR+
SM06
SM05
SM04
SM03
SM02
SM01
JM01
JM04
JM02
JM03
DM01
DM02
DM04
8
1
BM02
DM03

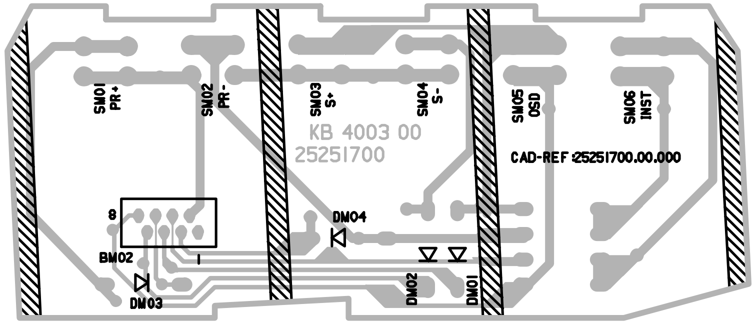
COMPONENT SIDE - COTE COMPOSANTS -
BESTÜCKUNGSSEITE -
LATO COMPONENTI -
LADO COMPONENTES

SOLDER SIDE - CÔTE SOUDURES -
LÖTSEITE - LATO SALDATURE -
LADO SOLDADURAS


BM11
RM08
RM07
JM01
CM13
CM12
CM14
LM02/RM10
BM10
RM14
BM12
RM13
BM03
CM01
LM01/RM09
JM02
JM03
JM04
RM16
CM11
RM15
CM02
BM01
BM05
7
1
6
RM19
JM05
BZ21
BZ03

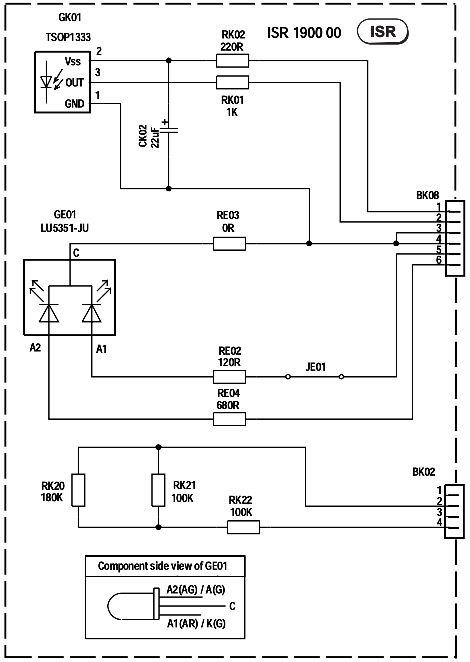

BM12
VIDEO
LEFT
BM10
RIGHT
BM11
BM09
BM01
BZ21
BM05
BZ03

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE -
LADO SOLDADURAS


SM01
PR+
SM02
PR-
SM03
S+
SM04
S-
SM05
OSD
SM06
INST
KB 4003 00
25251700
CAD-REF :25251700.00.000
8
BM02
1
DM04
DM03
DM02
DM01

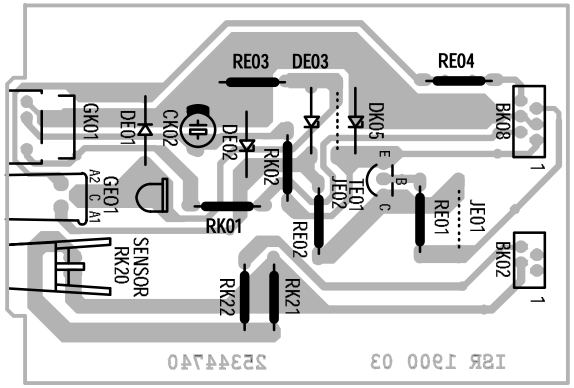
IR RECEIVER - PLATINE RECEPTEUR INFRA-ROUGE - IR EMPFÄNGER - LPTL. PIASTRA RICEVITORE IR - PLATINA RECEPTOR IR

ISR19100


GK01
TSOP1333
Vss
OUT
GND
2
3
1
RK02
220R
RK01
1K
CK02
22uF
ISR 1900 00
ISR
BK08
1
2
3
4
5
6
GE01
LU5351-JU
RE03
0R
C
A2
A1
RE02
120R
JE01
RE04
680R
RK20
180K
RK21
100K
RK22
100K
BK02
1
2
3
4
Component side view of GE01
A2(AG) / A(G)
C
A1(AR) / K(G)

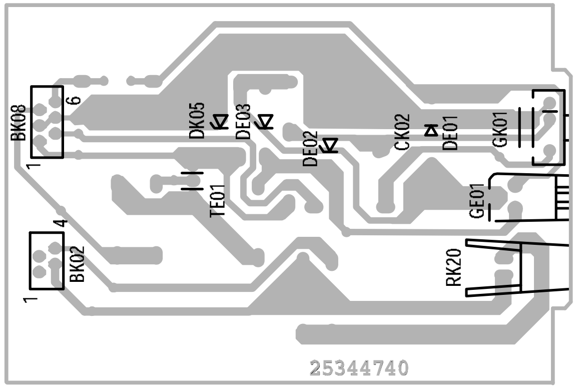
ISR19100

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES

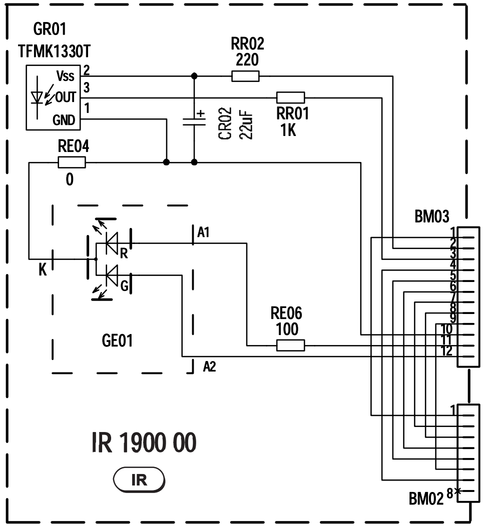

RE03
DE03
RE04
GK01
DE01
CK02
DE02
DK05
BK08
RK02
TE01
JE02
E
B
C
RE01
JE01
GE01
A2 C A1
RK01
RE02
SENSOR
RK20
BK02
RK22
RK21
25344740
ISR 1900 03

ISR19100

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE
LATO SALDATURE - LADO SOLDADURAS

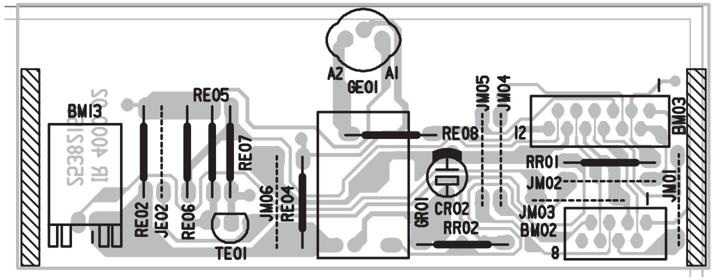

BK08
6
1
DK05
DE03
DE02
CK02
DE01
GK01
TE01
GE01
4
BK02
1
RK20
25344740

IR1900


GR01
TFMK1330T
Vss
OUT
GND
2
3
1
RR02
220
RR01
1K
CR02
22uF
RE04
0
BM03
1
2
3
4
5
6
7
8
9
10
11
12
R
A1
K
G
GE01
RE06
100
A2
IR 1900 00
IR
BM02
1
8

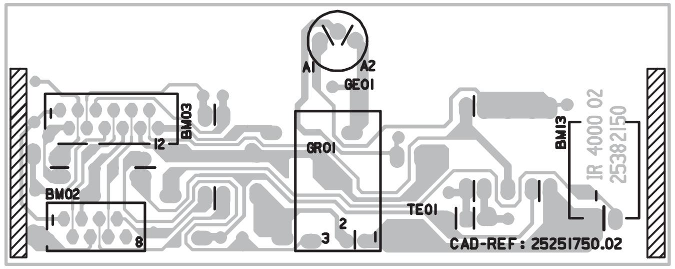
IR1900

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE
LATO COMPONENTI - LADO COMPONENTES


A2
GE01
A1
BM13
RE05
JM05
JM04
BM03
12
RE08
RR01
JM02
JM01
RE07
JM06
RE04
GR01
CR02
RR02
JM03
BM02
8
RE02
JE02
RE06
TE01
IR 4000 02
25382150

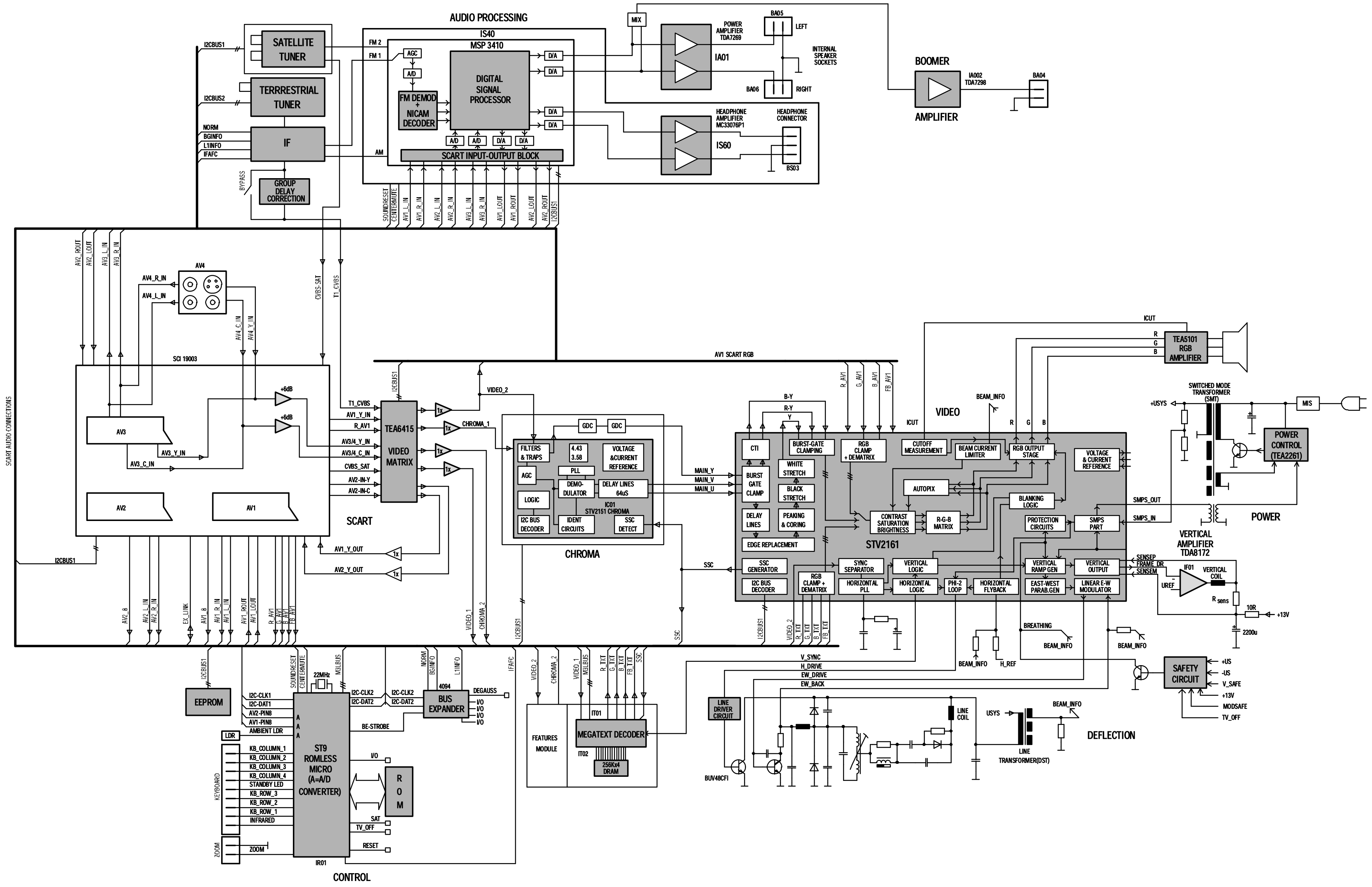
IR1900

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE
LATO SALDATURE - LADO SOLDADURAS


A1
A2
GE01
BM03
12
GR01
BM13
IR 4000 02
25382150
BM02
TE01
3
2
1
8
CAD-REF : 25251750.02

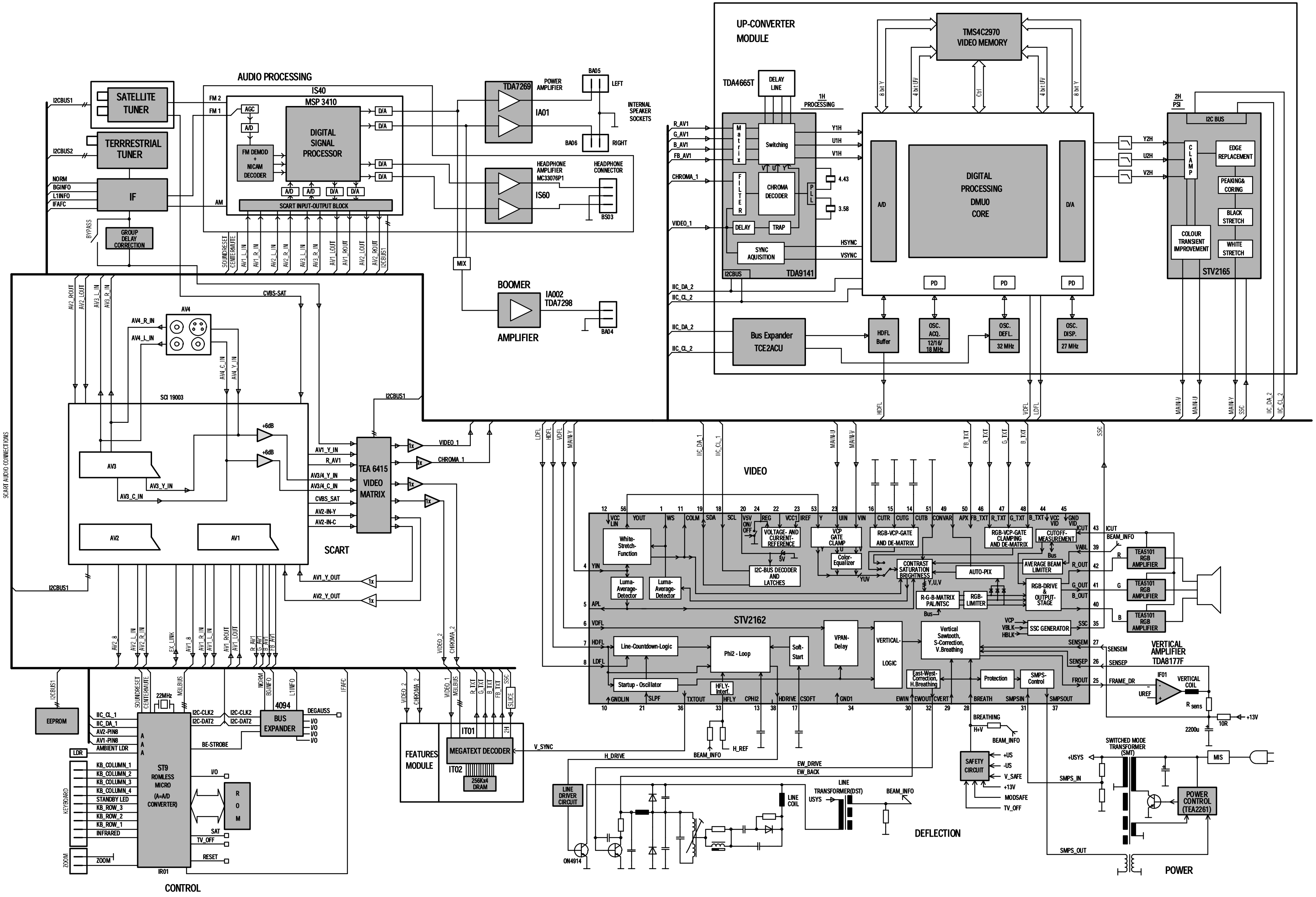
MC-Service

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCI - ESQUEMA DE BLOQUES


AUDIO PROCESSING
IS40
MSP 3410
FM 2
FM 1
AGC
A/D
FM DEMOD + NICAM DECODER
DIGITAL SIGNAL PROCESSOR
D/A
SCART INPUT-OUTPUT BLOCK
AM
SATELLITE TUNER
TERRRESTRIAL TUNER
IF
GROUP DELAY CORRECTION
BYPASS
I2CBUS1
I2CBUS2
NORM
BGINFO
L1INFO
IFAFC
MIX
POWER AMPLIFIER TDA7269
IA01
BA05
LEFT
INTERNAL SPEAKER SOCKETS
BA06
RIGHT
HEADPHONE AMPLIFIER MC33076P1
IS60
HEADPHONE CONNECTOR
BS03
BOOMER
IA002 TDA7298
BA04
AMPLIFIER
SOUNDRESET
CENTERMUTE
AV1_L_IN
AV1_R_IN
AV2_L_IN
AV2_R_IN
AV3_L_IN
AV3_R_IN
AV1_LOUT
AV1_ROUT
AV2_LOUT
AV2_ROUT
I2CBUS1
AV2_ROUT
AV2_LOUT
AV3_L_IN
AV3_R_IN
AV4
AV4_R_IN
AV4_L_IN
AV4_C_IN
AV4_Y_IN
CVBS SAT
T1_CVBS
SCI 19003
SCART AUDIO CONNECTIONS
+6dB
AV3
AV3_Y_IN
AV3_C_IN
AV2
AV1
SCART
I2CBUS1
T1_CVBS
AV1_Y_IN
R_AV1
AV3/4_Y_IN
AV3/4_C_IN
CVBS_SAT
AV2-IN-Y
AV2-IN-C
TEA6415
VIDEO MATRIX
1x
VIDEO_2
CHROMA_1
AV1_Y_OUT
AV2_Y_OUT
AV1 SCART RGB
GDC
FILTERS & TRAPS
4.43 3.58
VOLTAGE &CURRENT REFERENCE
AGC
PLL
DEMO-DULATOR
DELAY LINES 64uS
LOGIC
IC01 STV2151 CHROMA
I2C BUS DECODER
IDENT CIRCUITS
SSC DETECT
CHROMA
MAIN_Y
MAIN_V
MAIN_U
SSC
AV2_8
AV2_L_IN
AV2_R_IN
EX_LINK
AV1_8
AV1_R_IN
AV1_L_IN
AV1_ROUT
AV1_LOUT
R_AV1
G_AV1
B_AV1
FB_AV1
VIDEO_1
CHROMA_2
I2CBUS1
SSC
R_AV1
G_AV1
B_AV1
FB_AV1
B-Y
R-Y
Y
CTI
BURST-GATE CLAMPING
RGB CLAMP + DEMATRIX
CUTOFF MEASUREMENT
BEAM CURRENT LIMITER
RGB OUTPUT STAGE
VOLTAGE & CURRENT REFERENCE
BURST GATE CLAMP
WHITE STRETCH
BLACK STRETCH
AUTOPIX
BLANKING LOGIC
DELAY LINES
PEAKING & CORING
CONTRAST SATURATION BRIGHTNESS
R-G-B MATRIX
PROTECTION CIRCUITS
SMPS PART
EDGE REPLACEMENT
STV2161
SSC GENERATOR
SYNC SEPARATOR
VERTICAL LOGIC
VERTICAL RAMP GEN
VERTICAL OUTPUT
I2C BUS DECODER
RGB CLAMP + DEMATRIX
HORIZONTAL PLL
HORIZONTAL LOGIC
PHI-2 LOOP
HORIZONTAL FLYBACK
EAST-WEST PARAB.GEN
LINEAR E-W MODULATOR
VIDEO
ICUT
BEAM_INFO
R
G
B
TEA5101 RGB AMPLIFIER
SWITCHED MODE TRANSFORMER (SMT)
+USYS
MIS
POWER CONTROL (TEA2261)
SMPS_OUT
SMPS_IN
POWER
VERTICAL AMPLIFIER TDA8172
SENSEP
FRAME_DR
SENSEM
IF01
UREF
VERTICAL COIL
R sens
10R
+13V
2200u
I2CBUS1
VIDEO_2
R_TXT
G_TXT
B_TXT
FB_TXT
V_SYNC
H_DRIVE
EW_DRIVE
EW_BACK
BREATHING
BEAM_INFO
H_REF
SAFETY CIRCUIT
+US
-US
V_SAFE
+13V
MODSAFE
TV_OFF
LINE DRIVER CIRCUIT
BUV48CFI
LINE COIL
USYS
LINE TRANSFORMER(DST)
DEFLECTION
I2CBUS1
EEPROM
SOUNDRESET
CENTERMUTE
M3LBUS
22MHz
I2C-CLK1
I2C-DAT1
AV2-PIN8
AV1-PIN8
AMBIENT LDR
LDR
KEYBOARD
KB_COLUMN_1
KB_COLUMN_2
KB_COLUMN_3
KB_COLUMN_4
STANDBY LED
KB_ROW_3
KB_ROW_2
KB_ROW_1
INFRARED
ZOOM
ST9 ROMLESS MICRO (A=A/D CONVERTER)
IR01
I2C-CLK2
I2C-DAT2
BE-STROBE
I/O
SAT
TV_OFF
RESET
ROM
CONTROL
NORM
BGINFO
L1INFO
IFAFC
4094
BUS EXPANDER
DEGAUSS
VIDEO_2
CHROMA_2
VIDEO_1
M3LBUS
R_TXT
G_TXT
B_TXT
FB_TXT
SSC
FEATURES MODULE
IT01
MEGATEXT DECODER
IT02
256Kx4 DRAM

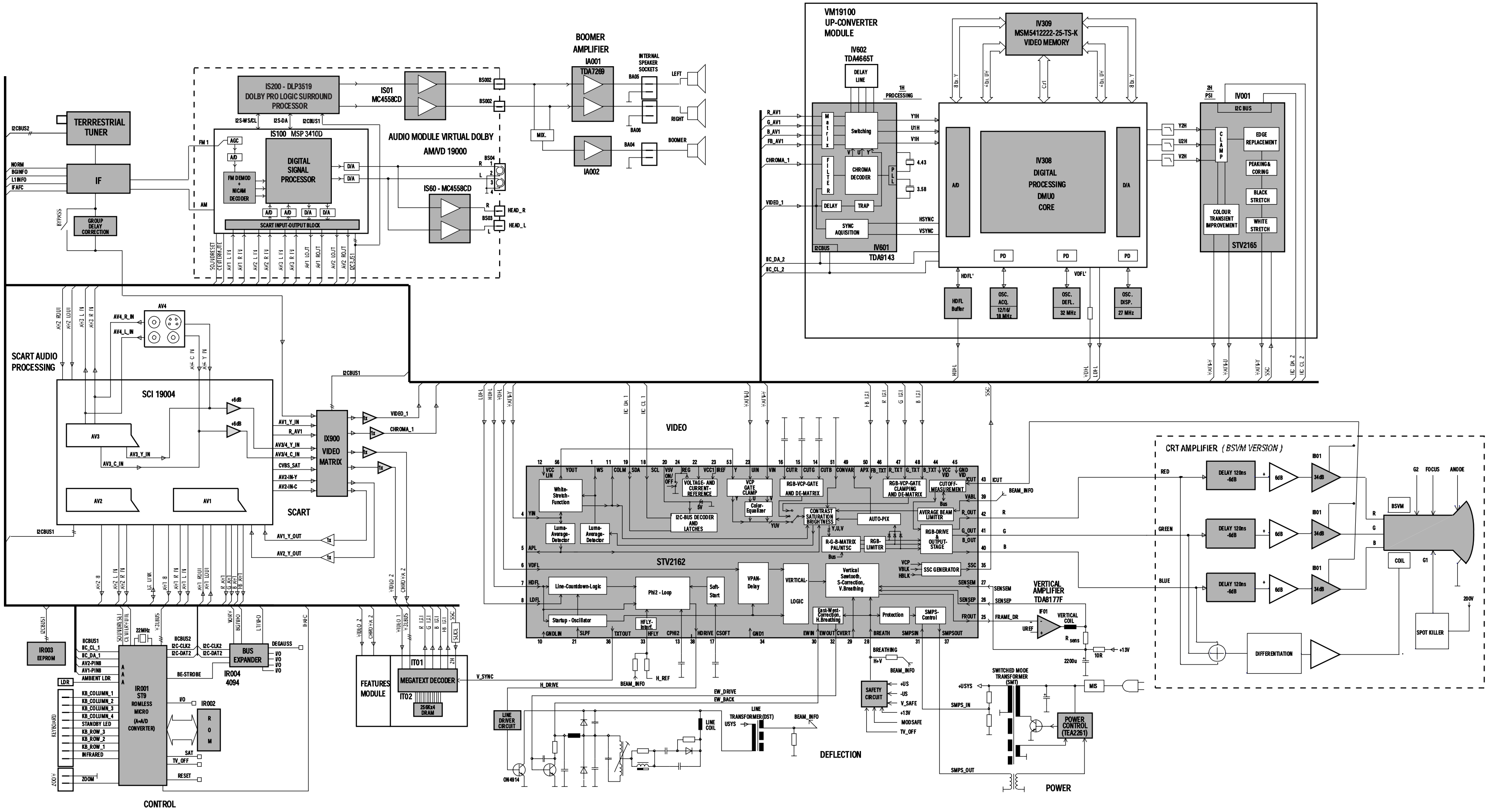
MC-Service

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCI - ESQUEMA DE BLOQUES



UP-CONVERTER MODULE
TMS4C2970 VIDEO MEMORY
TDA4665T
DELAY LINE
1H PROCESSING
Matrix
Switching
FILTER
CHROMA DECODER
PLL
4.43
3.58
DELAY
TRAP
SYNC AQUISITION
TDA9141
I2CBUS
R_AV1
G_AV1
B_AV1
FB_AV1
CHROMA_1
VIDEO_1
HSYNC
VSYNC
IIC_DA_2
IIC_CL_2
Y1H
U1H
V1H
A/D
DIGITAL PROCESSING DMU0 CORE
D/A
PD
Bus Expander TCE2ACU
HDFL Buffer
OSC. ACQ. 12/16/18 MHz
OSC. DEFL. 32 MHz
OSC. DISP. 27 MHz
2H PSI
I2C BUS
Y2H
U2H
V2H
CLAMP
EDGE REPLACEMENT
PEAKING& CORING
BLACK STRETCH
WHITE STRETCH
COLOUR TRANSIENT IMPROVEMENT
STV2165
AUDIO PROCESSING
IS40
MSP 3410
AGC
A/D
FM DEMOD + NICAM DECODER
DIGITAL SIGNAL PROCESSOR
D/A
SCART INPUT-OUTPUT BLOCK
FM 2
FM 1
AM
SATELLITE TUNER
TERRRESTRIAL TUNER
IF
GROUP DELAY CORRECTION
BYPASS
I2CBUS1
I2CBUS2
NORM
BGINFO
L1INFO
IFAFC
TDA7269
POWER AMPLIFIER
IA01
BA05
LEFT
BA06
RIGHT
INTERNAL SPEAKER SOCKETS
HEADPHONE AMPLIFIER MC33076P1
HEADPHONE CONNECTOR
IS60
BS03
MIX
BOOMER
IA002 TDA7298
AMPLIFIER
BA04
CVBS-SAT
AV4
AV4_R_IN
AV4_L_IN
AV4_C_IN
AV4_Y_IN
SCI 19003
AV3
AV3_Y_IN
AV3_C_IN
AV2
AV1
+6dB
TEA 6415 VIDEO MATRIX
AV1_Y_IN
R_AV1
AV3/4_Y_IN
AV3/4_C_IN
CVBS_SAT
AV2-IN-Y
AV2-IN-C
VIDEO_1
CHROMA_1
1x
AV1_Y_OUT
AV2_Y_OUT
SCART
SCART AUDIO CONNECTIONS
VIDEO
STV2162
White-Stretch-Function
Luma-Average-Detector
VOLTAGE- AND CURRENT-REFERENCE
I2C-BUS DECODER AND LATCHES
VCP GATE CLAMP
Color-Equalizer
RGB-VCP-GATE AND DE-MATRIX
CONTRAST SATURATION BRIGHTNESS
R-G-B-MATRIX PAL/NTSC
RGB-LIMITER
AUTO-PIX
RGB-VCP-GATE CLAMPING AND DE-MATRIX
CUTOFF-MEASUREMENT
AVERAGE BEAM LIMITER
RGB-DRIVE & OUTPUT-STAGE
SSC GENERATOR
Line-Countdown-Logic
Phi2 - Loop
Soft-Start
VPAN-Delay
VERTICAL-LOGIC
Vertical Sawtooth, S-Correction, V.Breathing
East-West-Correction, H.Breathing
Protection
SMPS-Control
Startup - Oscillator
HFLY-Interf.
TEA5101 RGB AMPLIFIER
VERTICAL AMPLIFIER TDA8177F
VERTICAL COIL
R sens
SAFETY CIRCUIT
LINE DRIVER CIRCUIT
ON4914
LINE COIL
LINE TRANSFORMER(DST)
DEFLECTION
SWITCHED MODE TRANSFORMER (SMT)
MIS
POWER CONTROL (TEA2261)
POWER
EEPROM
LDR
KEYBOARD
ZOOM
ST9 ROMLESS MICRO (A=A/D CONVERTER)
IR01
ROM
22MHz
4094
BUS EXPANDER
DEGAUSS
FEATURES MODULE
IT01
MEGATEXT DECODER
IT02
256Kx4 DRAM
V_SYNC
H_DRIVE
CONTROL

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES
ICC19 100 Hz - VIRTUAL DOLBY



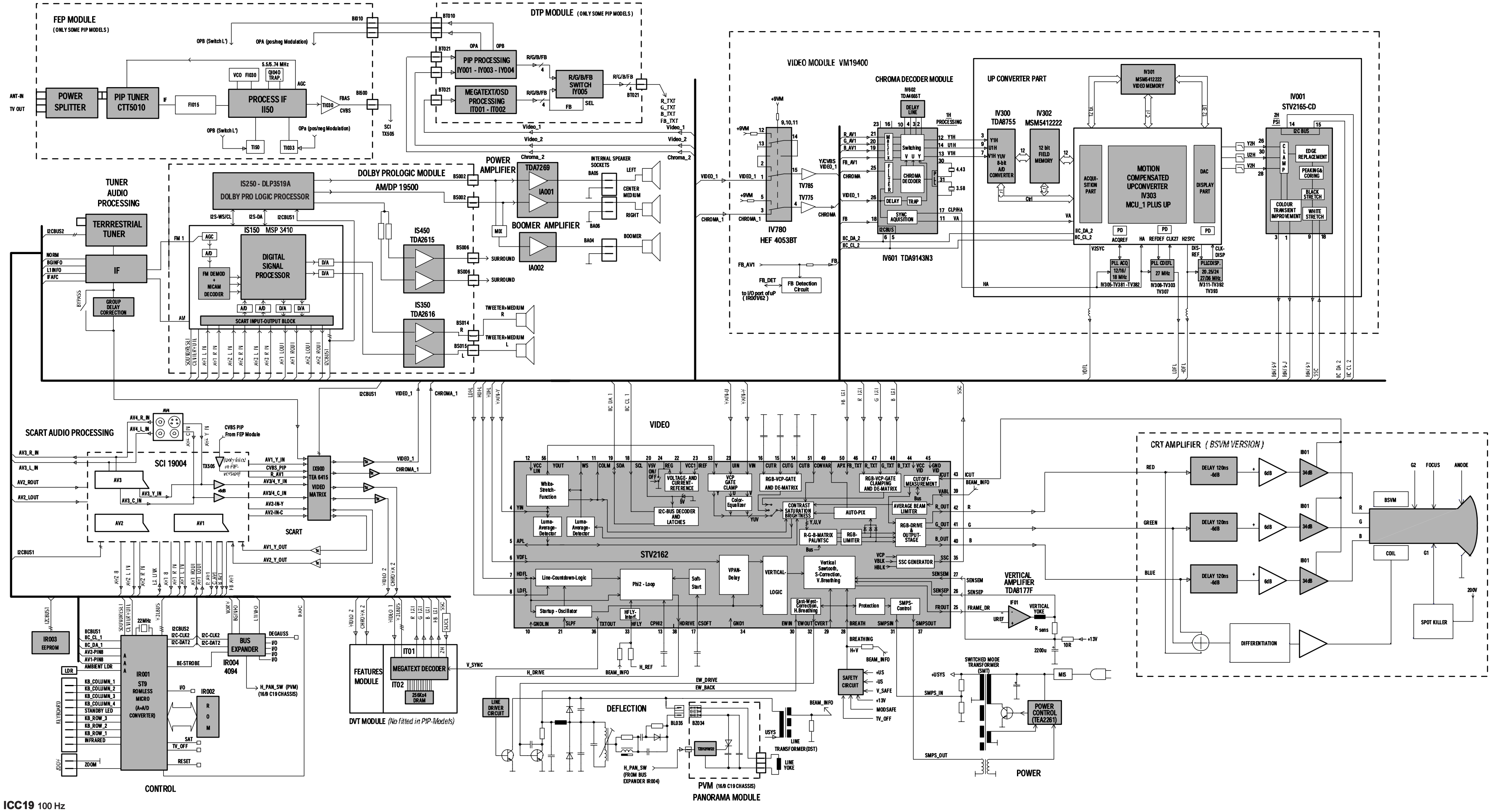
TERRRESTRIAL TUNER
IF
GROUP DELAY CORRECTION
I2CBUS2
NORM
BGINFO
L1INFO
IFAFC
BYPASS
IS200 - DLP3519
DOLBY PRO LOGIC SURROUND PROCESSOR
IS01 MC4558CD
IS100 MSP 3410D
DIGITAL SIGNAL PROCESSOR
FM DEMOD + NICAM DECODER
AGC
A/D
D/A
SCART INPUT-OUTPUT BLOCK
AUDIO MODULE VIRTUAL DOLBY AM/VD 19000
IS60 - MC4558CD
BS02
BS03
BS04
BS05
HEAD_R
HEAD_L
BOOMER AMPLIFIER
IA001 TDA7269
IA002
INTERNAL SPEAKER SOCKETS
BA05
BA06
BA04
LEFT
RIGHT
BOOMER
MIX.
FM 1
AM
SCART AUDIO PROCESSING
AV4
AV4_R_IN
AV4_L_IN
SCI 19004
AV3
AV2
AV1
AV3_Y_IN
AV3_C_IN
+6dB
I2CBUS1
IX900 VIDEO MATRIX
AV1_Y_IN
R_AV1
AV3/4_Y_IN
AV3/4_C_IN
CVBS_SAT
AV2-IN-Y
AV2-IN-C
VIDEO_1
CHROMA_1
AV1_Y_OUT
AV2_Y_OUT
SCART
IR003 EEPROM
IR001 ST9 ROMLESS MICRO (A+A/D CONVERTER)
22MHz
IR002 ROM
IR004 4094
BUS EXPANDER
DEGAUSS
BE-STROBE
KEYBOARD
LDR
ZOOM
KB_COLUMN_1
KB_COLUMN_2
KB_COLUMN_3
KB_COLUMN_4
STANDBY LED
KB_ROW_3
KB_ROW_2
KB_ROW_1
INFRARED
AMBIENT LDR
SAT
TV_OFF
RESET
CONTROL
FEATURES MODULE
IT01 MEGATEXT DECODER
IT02 256Kx4 DRAM
V_SYNC
VM19100 UP-CONVERTER MODULE
IV602 TDA4665T
DELAY LINE
IV601 TDA9143
Matrix
Switching
FILTER
CHROMA DECODER
PLL
DELAY
TRAP
SYNC AQUISITION
1H PROCESSING
4.43
3.58
R_AV1
G_AV1
B_AV1
FB_AV1
CHROMA_1
VIDEO_1
IIC_DA_2
IIC_CL_2
HSYNC
VSYNC
IV309 MSM5412222-25-TS-K VIDEO MEMORY
IV308 DIGITAL PROCESSING DMU0 CORE
A/D
D/A
PD
HDFL Buffer
OSC. ACQ. 12/16/18 MHz
OSC. DEFL. 32 MHz
OSC. DISP. 27 MHz
IV001 STV2165
I2C BUS
CLAMP
EDGE REPLACEMENT
PEAKING & CORING
BLACK STRETCH
WHITE STRETCH
COLOUR TRANSIENT IMPROVEMENT
VIDEO
STV2162
White-Stretch-Function
Luma-Average-Detector
VOLTAGE- AND CURRENT-REFERENCE
VCP GATE CLAMP
Color-Equalizer
RGB-VCP-GATE AND DE-MATRIX
I2C-BUS DECODER AND LATCHES
CONTRAST SATURATION BRIGHTNESS
AUTO-PIX
R-G-B-MATRIX PAL/NTSC
RGB-LIMITER
RGB-VCP-GATE CLAMPING AND DE-MATRIX
CUTOFF-MEASUREMENT
AVERAGE BEAM LIMITER
RGB-DRIVE & OUTPUT-STAGE
Line-Countdown-Logic
Phi2 - Loop
Soft-Start
VPAN-Delay
VERTICAL-LOGIC
Vertical Sawtooth, S-Correction, V.Breathing
SSC GENERATOR
Startup - Oscillator
HFLY-Interf.
East-West-Correction, H.Breathing
Protection
SMPS-Control
VERTICAL AMPLIFIER TDA8177F
IF01
VERTICAL COIL
FRAME_DR
UREF
SENSEM
SENSEP
BEAM_INFO
H_REF
H_DRIVE
EW_DRIVE
EW_BACK
LINE DRIVER CIRCUIT
LINE TRANSFORMER (DST)
LINE COIL
USYS
DEFLECTION
BREATHING
SAFETY CIRCUIT
+US
-US
V_SAFE
+13V
MODSAFE
TV_OFF
SWITCHED MODE TRANSFORMER (SMT)
SMPS_IN
SMPS_OUT
POWER CONTROL (TEA2261)
MIS
POWER
CRT AMPLIFIER (BSVM VERSION)
RED
GREEN
BLUE
DELAY 120ns -6dB
6dB
34dB
IB01
G2
FOCUS
ANODE
BSVM
COIL
G1
SPOT KILLER
DIFFERENTIATION
200V

ICC19 100 Hz
First issue 09 / 97

Updated 11 / 99

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES

ICC19 MM 100 Hz - MOTION MASTERING - DOLBY PRO-LOGIC - PIP

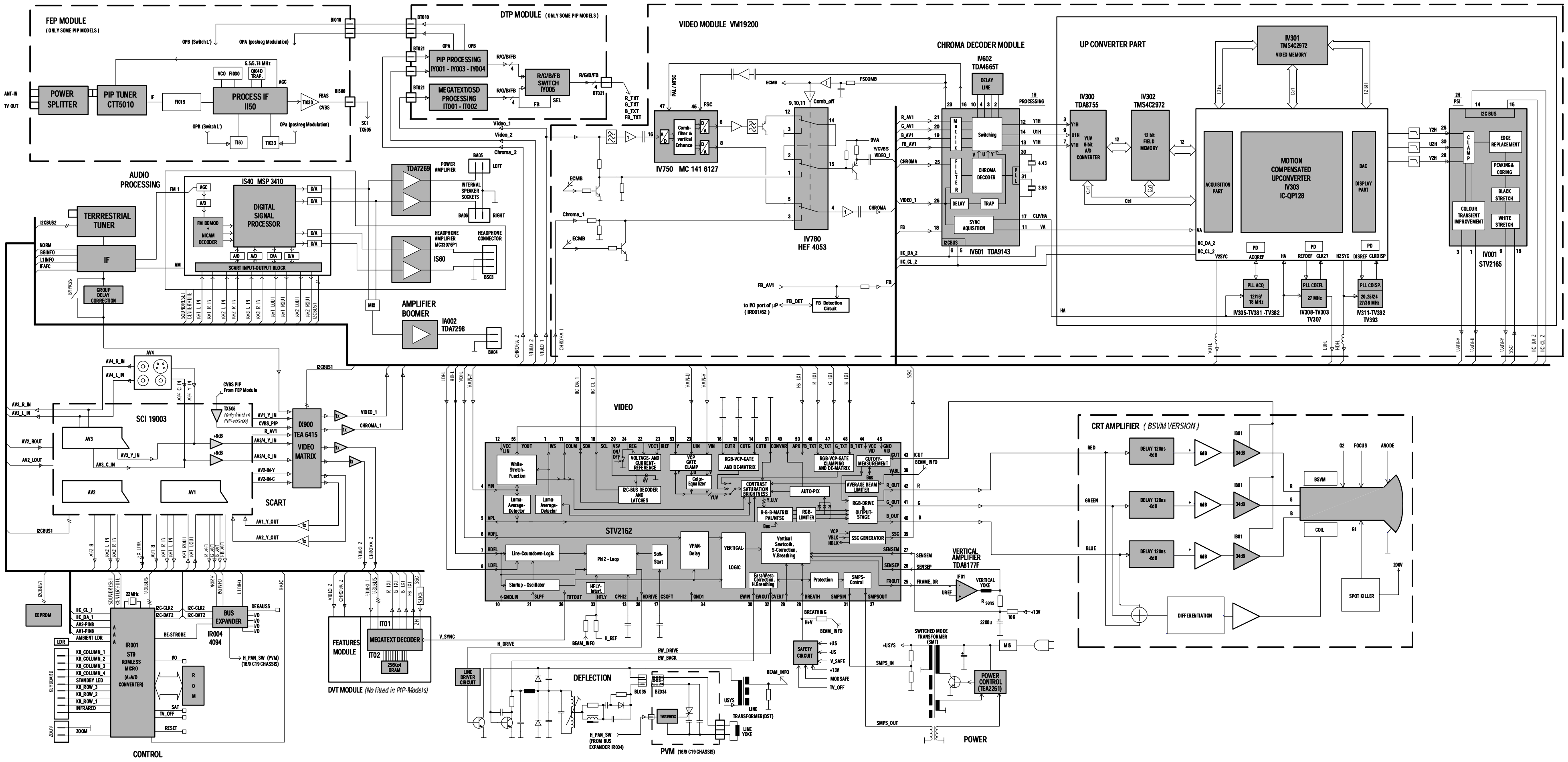

FEP MODULE
(ONLY SOME PIP MODELS)
POWER SPLITTER
PIP TUNER CTT5010
PROCESS IF II50
ANT-IN
TV OUT
DTP MODULE (ONLY SOME PIP MODELS)
PIP PROCESSING IY001 - IY003 - IY004
MEGATEXT/OSD PROCESSING IT001 - IT002
R/G/B/FB SWITCH IY005
TUNER AUDIO PROCESSING
TERRRESTRIAL TUNER
IF
GROUP DELAY CORRECTION
DOLBY PROLOGIC MODULE
IS250 - DLP3519A
DOLBY PRO LOGIC PROCESSOR
AM/DP 19500
IS150 MSP 3410
DIGITAL SIGNAL PROCESSOR
FM DEMOD + NICAM DECODER
SCART INPUT-OUTPUT BLOCK
POWER AMPLIFIER
TDA7269
IA001
BOOMER AMPLIFIER
IA002
IS450 TDA2615
IS350 TDA2616
INTERNAL SPEAKER SOCKETS
LEFT
CENTER MEDIUM
RIGHT
BOOMER
SURROUND
TWEETER+MEDIUM
VIDEO MODULE VM19400
IV780 HEF 4053BT
FB Detection Circuit
CHROMA DECODER MODULE
IV602 TDA4665T
DELAY LINE
IV601 TDA9143N3
UP CONVERTER PART
IV300 TDA8755
IV302 MSM5412222
IV301 MSM5412222 VIDEO MEMORY
MOTION COMPENSATED UPCONVERTER IV303 MCU_1 PLUS UP
ACQUISITION PART
DISPLAY PART
IV001 STV2165-CD
EDGE REPLACEMENT
PEAKING&CORING
BLACK STRETCH
WHITE STRETCH
COLOUR TRANSIENT IMPROVEMENT
SCART AUDIO PROCESSING
SCI 19004
AV1
AV2
AV3
AV4
SCART
IX900 TEA 6415 VIDEO MATRIX
VIDEO
STV2162
VERTICAL AMPLIFIER TDA8177F
CRT AMPLIFIER (BSVM VERSION)
DELAY 120ns -6dB
6dB
34dB
IB01
RED
GREEN
BLUE
BSVM
COIL
SPOT KILLER
DIFFERENTIATION
G2
FOCUS
ANODE
IR003 EEPROM
IR001 ST9 ROMLESS MICRO (A+A/D CONVERTER)
IR002 ROM
IR004 4094
BUS EXPANDER
KEYBOARD
LDR
ZOOM
CONTROL
FEATURES MODULE
IT01
IT02
MEGATEXT DECODER
256Kx4 DRAM
DVT MODULE (No fitted in PIP-Models)
LINE DRIVER CIRCUIT
DEFLECTION
LINE TRANSFORMER (DST)
LINE YOKE
PVM (16/9 C19 CHASSIS)
PANORAMA MODULE
SAFETY CIRCUIT
SWITCHED MODE TRANSFORMER (SMT)
POWER CONTROL (TEA2261)
MIS
POWER

ICC19 100 Hz
First issue 09 / 97

Updated 11 / 99

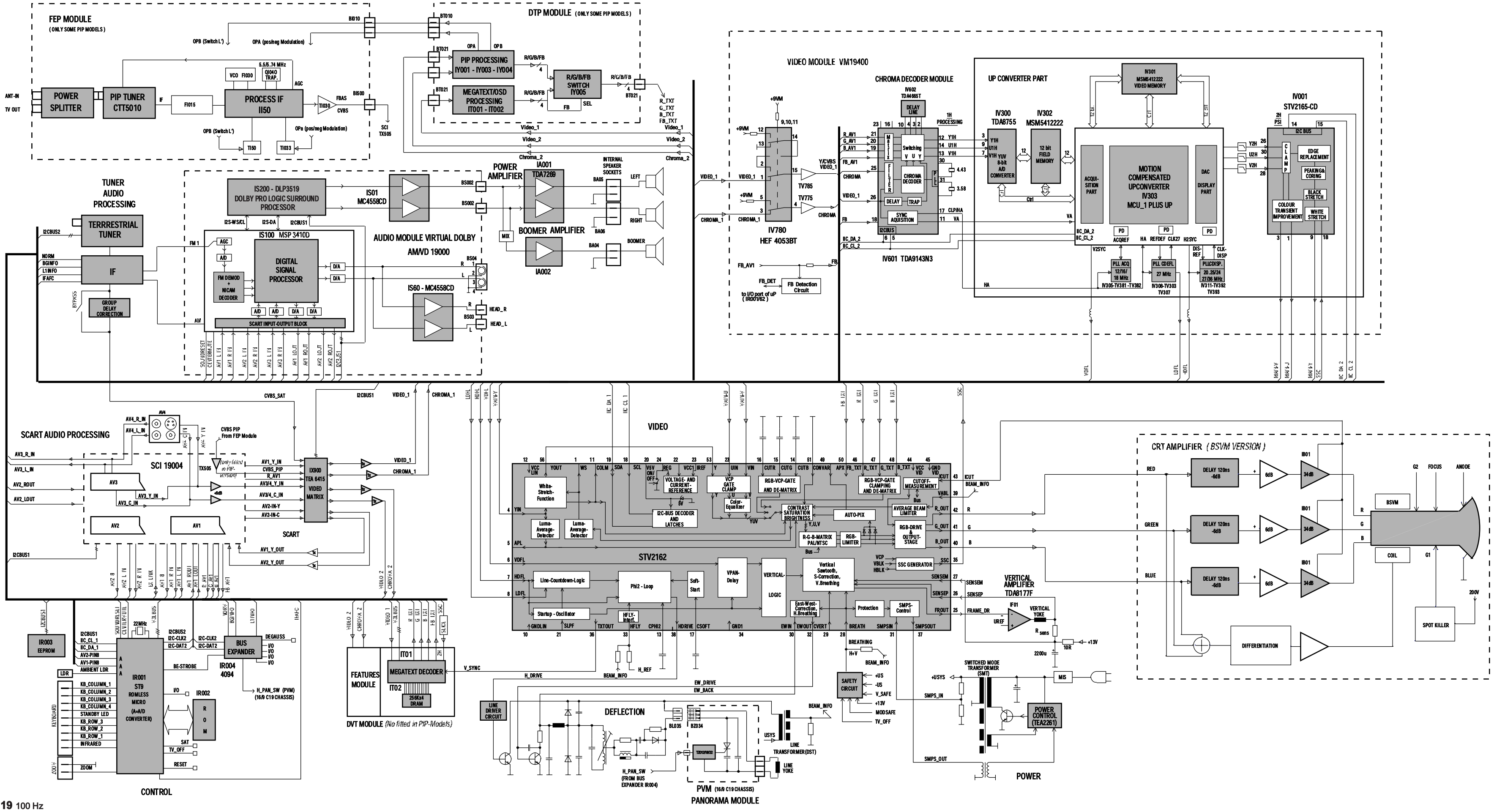
MC-Service

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES
ICC19 MM 100 Hz - MOTION MASTERING



FEP MODULE (ONLY SOME PIP MODELS)
POWER SPLITTER
PIP TUNER CTT5010
PROCESS IF II50
DTP MODULE (ONLY SOME PIP MODELS)
PIP PROCESSING IY001 - IY003 - IY004
MEGATEXT/OSD PROCESSING IT001 - IT002
R/G/B/FB SWITCH IY005
VIDEO MODULE VM19200
CHROMA DECODER MODULE
IV602 TDA4665T
DELAY LINE
UP CONVERTER PART
IV301 TMS4C2972 VIDEO MEMORY
IV300 TDA8755
IV302 TMS4C2972
MOTION COMPENSATED UPCONVERTER IV303 IC-QP128
ACQUISITION PART
DAC DISPLAY PART
IV001 STV2165
EDGE REPLACEMENT
PEAKING & CORING
BLACK STRETCH
WHITE STRETCH
COLOUR TRANSIENT IMPROVEMENT
IV750 MC 141 6127
IV780 HEF 4053
IV601 TDA9143
PLL ACQ
PLL CDEFL
PLL CDISP
IV305-TV381-TV382
IV308-TV303 TV307
IV311-TV392 TV393
AUDIO PROCESSING
IS40 MSP 3410
DIGITAL SIGNAL PROCESSOR
TERRRESTRIAL TUNER
IF
GROUP DELAY CORRECTION
TDA7269
POWER AMPLIFIER
HEADPHONE AMPLIFIER MC33078P1
IS60
AMPLIFIER BOOMER IA002 TDA7298
FB Detection Circuit
SCI 19003
IX900 TEA 6415 VIDEO MATRIX
SCART
VIDEO
STV2162
CRT AMPLIFIER (BSVM VERSION)
DELAY 120ns
BSVM
COIL
SPOT KILLER
DIFFERENTIATION
VERTICAL AMPLIFIER TDA8177F
EEPROM
IR001 ST9 ROMLESS MICRO (A+A/D CONVERTER)
BUS EXPANDER IR004 4094
ROM
CONTROL
FEATURES MODULE
IT01 MEGATEXT DECODER
IT02 256Kx4 DRAM
DVT MODULE (No fitted in PIP-Models)
LINE DRIVER CIRCUIT
DEFLECTION
PVM (16/9 C19 CHASSIS)
LINE TRANSFORMER(DST)
LINE YOKE
SAFETY CIRCUIT
SWITCHED MODE TRANSFORMER (SMT)
POWER CONTROL (TEA2261)
POWER

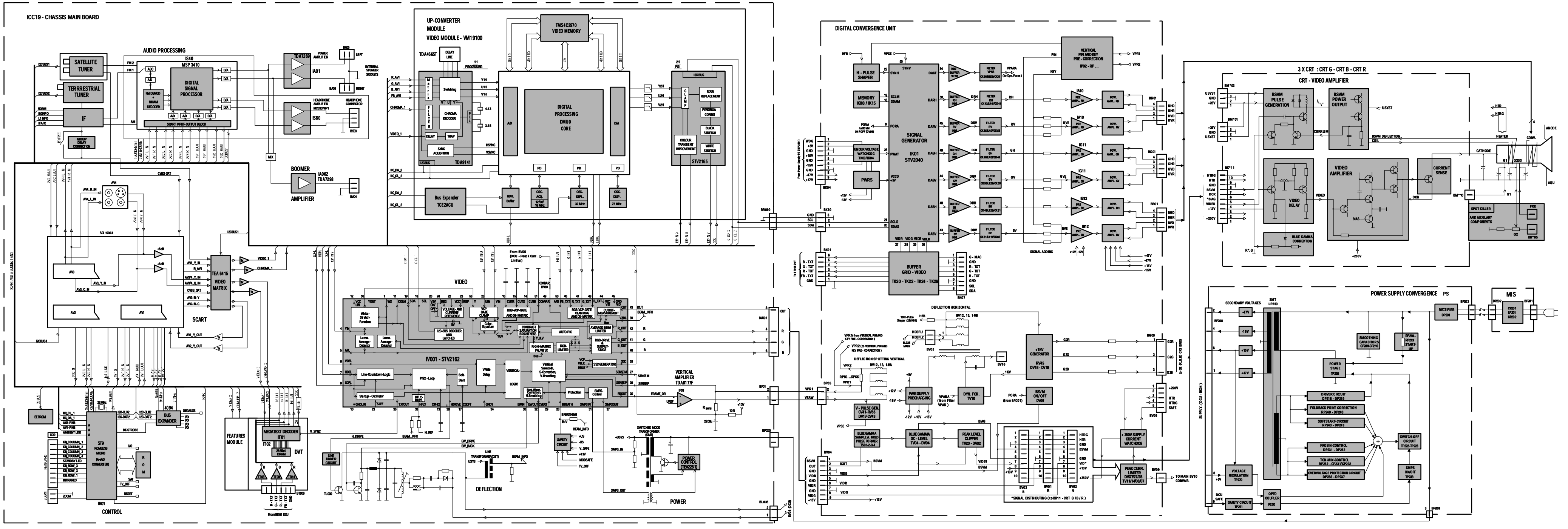
BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES
ICC19 MM 100 Hz - MOTION MASTERING - VIRTUAL DOLBY - PIP


FEP MODULE (ONLY SOME PIP MODELS)
POWER SPLITTER
PIP TUNER CTT5010
PROCESS IF II50
ANT-IN
TV OUT
DTP MODULE (ONLY SOME PIP MODELS)
PIP PROCESSING IY001 - IY003 - IY004
MEGATEXT/OSD PROCESSING IT001 - IT002
R/G/B/FB SWITCH IY005
TUNER AUDIO PROCESSING
TERRRESTRIAL TUNER
IF
GROUP DELAY CORRECTION
IS200 - DLP3519 DOLBY PRO LOGIC SURROUND PROCESSOR
IS01 MC4558CD
IS100 MSP 3410D
DIGITAL SIGNAL PROCESSOR
SCART INPUT-OUTPUT BLOCK
AUDIO MODULE VIRTUAL DOLBY AM/VD 19000
IS60 - MC4558CD
POWER AMPLIFIER IA001 TDA7269
BOOMER AMPLIFIER IA002
INTERNAL SPEAKER SOCKETS
LEFT
RIGHT
BOOMER
HEAD_R
HEAD_L
VIDEO MODULE VM19400
IV780 HEF 4053BT
FB Detection Circuit
CHROMA DECODER MODULE
IV602 TDA4665T
IV601 TDA9143N3
UP CONVERTER PART
IV300 TDA8755
IV302 MSM5412222
IV301 MSM5412222 VIDEO MEMORY
MOTION COMPENSATED UPCONVERTER IV303 MCU_1 PLUS UP
IV001 STV2165-CD
EDGE REPLACEMENT
PEAKING& CORING
BLACK STRETCH
COLOUR TRANSIENT IMPROVEMENT
WHITE STRETCH
SCART AUDIO PROCESSING
SCI 19004
IX800 TEA 6415 VIDEO MATRIX
SCART
VIDEO
STV2162
CRT AMPLIFIER (BSVM VERSION)
DELAY 120ns -6dB
BSVM
COIL
SPOT KILLER
DIFFERENTIATION
VERTICAL AMPLIFIER TDA8177F
IR003 EEPROM
IR001 ST9 ROMLESS MICRO (A+A/D CONVERTER)
IR002 ROM
BUS EXPANDER IR004 4094
CONTROL
FEATURES MODULE
IT01 MEGATEXT DECODER
IT02 256Kx4 DRAM
DVT MODULE (No fitted in PIP-Models)
LINE DRIVER CIRCUIT
DEFLECTION
PVM (16/9 C19 CHASSIS) PANORAMA MODULE
LINE TRANSFORMER (DST)
LINE YOKE
SAFETY CIRCUIT
SWITCHED MODE TRANSFORMER (SMT)
POWER CONTROL (TEA2261)
MIS
POWER

ICC19 100 Hz
First issue 09 / 97

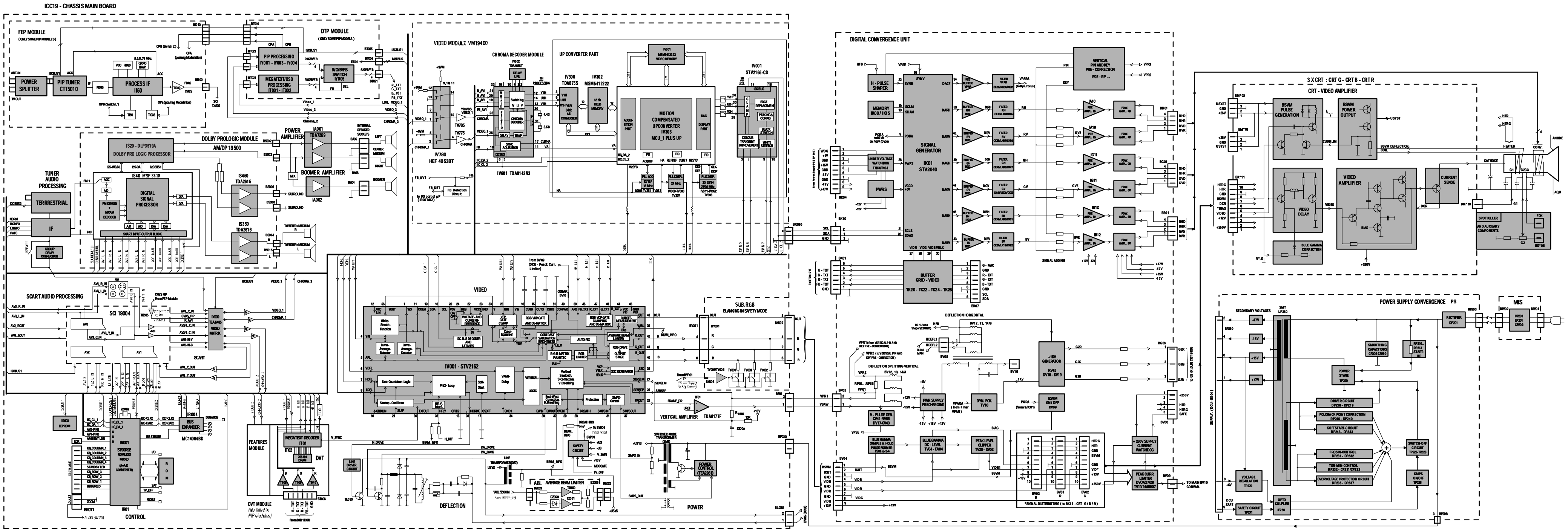
Updated 11 / 99

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES


ICC19 - CHASSIS MAIN BOARD
SATELLITE TUNER
TERRRESTRIAL TUNER
IF
AUDIO PROCESSING
IS40
MSP 3410
DIGITAL SIGNAL PROCESSOR
TDA7269
IA01
IS60
POWER AMPLIFIER
HEADPHONE AMPLIFIER
BOOMER
IA002
TDA7298
AMPLIFIER
UP-CONVERTER MODULE
VIDEO MODULE - VM19100
TMS4C2970 VIDEO MEMORY
TDA4665T
TDA9141
DIGITAL PROCESSING DMU0 CORE
STV2165
Bus Expander TCE2ACU
SCART
TEA 6415 VIDEO MATRIX
VIDEO
IV001 - STV2162
VERTICAL AMPLIFIER TDA8177F
EEPROM
ST9 ROMLESS MICRO
BUS EXPANDER
CONTROL
FEATURES MODULE
MEGATEXT DECODER IT01
DVT
DEFLECTION
POWER
POWER CONTROL (TEA2261)
DIGITAL CONVERGENCE UNIT
H - PULSE SHAPER
MEMORY IK08 / IK15
SIGNAL GENERATOR IK01 STV2040
UNDER VOLTAGE WATCHDOG
PWRS
BUFFER GRID - VIDEO TK20 - TK22 - TK24 - TK28
VERTICAL PIN AND KEY PRE - CORRECTION
SIGNAL ADDING
DEFLECTION HORIZONTAL
DEFLECTION SPLITTING VERTICAL
+15V GENERATOR
PWR SUPPLY PRECHARGING
DYN. FOK.
BLUE GAMMA SAMPLE & HOLD PULSE FORMER
BLUE GAMMA DC - LEVEL
PEAK LEVEL CLIPPER
+250V SUPPLY CURRENT WATCHDOG
PEAK CURR. LIMITER
*SIGNAL DISTRIBUTING (to BK11 - CRT G / B / R)
3 X CRT : CRT G - CRT B - CRT R
CRT - VIDEO AMPLIFIER
BSVM PULSE GENERATION
BSVM POWER OUTPUT
VIDEO DELAY
VIDEO AMPLIFIER
CURRENT SENSE
BLUE GAMMA CORRECTION
SPOT KILLER
POWER SUPPLY CONVERGENCE PS
MIS
RECTIFIER
SMOOTHING CAPACITORS
POWER STAGE
DRIVER CIRCUIT
FOLDBACK POINT CORRECTION
SOFTSTART-CIRCUIT
FBDSM-CONTROL
TON-MIN-CONTROL
OVERVOLTAGE PROTECTION CIRCUIT
SWITCH-OFF CIRCUIT
SMPS ON/OFF
VOLTAGE REGULATION
OPTO COUPLER
SAFETY CIRCUIT

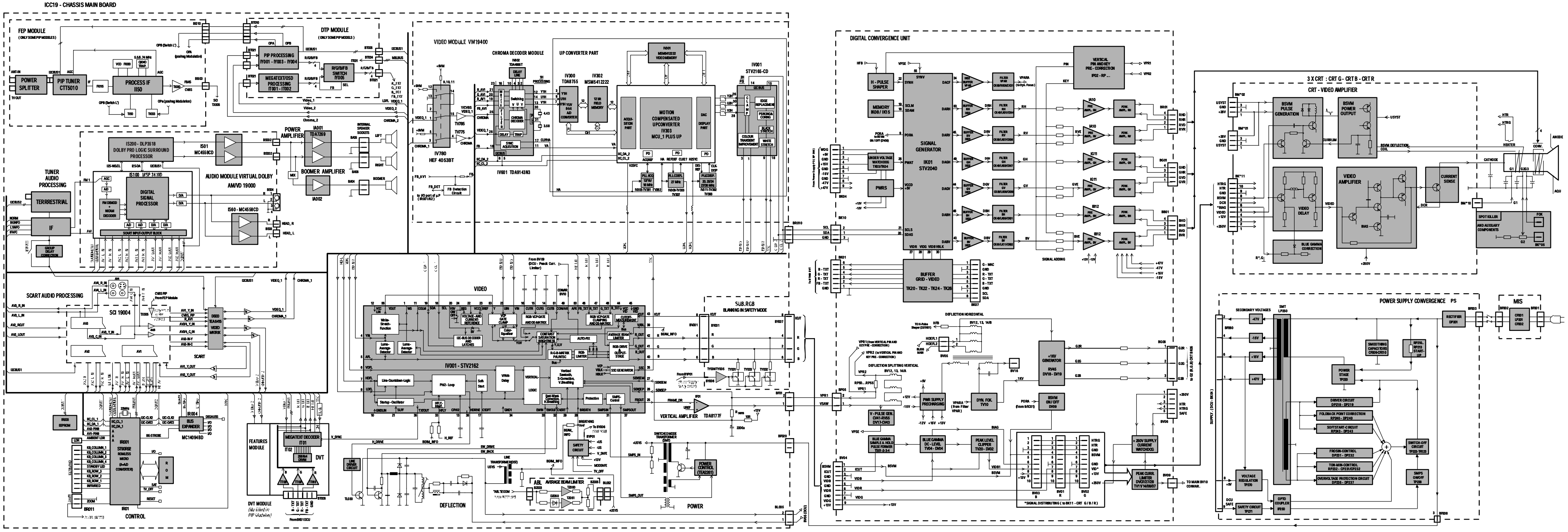
RP C19
First issue 07 / 98

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES
RP C19 - DOLBY PRO-LOGIC - PIP


ICC19 - CHASSIS MAIN BOARD
FEP MODULE
(ONLY SOME PIP MODELES)
POWER SPLITTER
PIP TUNER CTT5010
PROCESS IF II50
VCO FI030
QI040 TRAP.
5.5/5.74 MHz
FI015
TI030
TI50
TI033
ANT-IN
TV OUT
I2CBUS1
AGC
IF
FBAS
CVBS
OPB (Switch L')
OPA (pos/neg Modulation)
SCI TX505
BI010
BI500
DTP MODULE
(ONLY SOME PIP MODELS)
PIP PROCESSING IY001 - IY003 - IY004
MEGATEXT/OSD PROCESSING IT001 - IT002
R/G/B/FB SWITCH IY005
BT010
BT021
BT005
BT004
M3LBUS
R_TXT
G_TXT
B_TXT
FB_TXT
Video_1
Video_2
Chroma_2
VIDEO_1
VIDEO_2
CHROMA_2
DOLBY PROLOGIC MODULE
IS20 - DLP3519A DOLBY PRO LOGIC PROCESSOR
AM/DP 19500
IS40 MSP 3410
DIGITAL SIGNAL PROCESSOR
FM DEMOD + NICAM DECODER
SCART INPUT-OUTPUT BLOCK
IS450 TDA2615
IS350 TDA2616
POWER AMPLIFIER
IA001 TDA7269
BOOMER AMPLIFIER
IA002
MIX
INTERNAL SPEAKER SOCKETS
LEFT
CENTER MEDIUM
RIGHT
BOOMER
SURROUND
TWEETER+MEDIUM R
TWEETER+MEDIUM L
TUNER AUDIO PROCESSING
TERRRESTRIAL
IF
GROUP DELAY CORRECTION
NORM
BGINFO
L1INFO
IFAFC
SCART AUDIO PROCESSING
SCI 19004
AV4
AV3
AV2
AV1
SCART
IX900 TEA6415 VIDEO MATRIX
CVBS PIP From FEP Module
AV1_Y_OUT
AV2_Y_OUT
VIDEO MODULE VM19400
IV780 HEF 4053BT
TV785
TV775
FB Detection Circuit
to I/O part of µP (IR001/62)
CHROMA DECODER MODULE
IV602 TDA4665T DELAY LINE
1H PROCESSING
IV601 TDA9143N3
SYNC AQUISITION
UP CONVERTER PART
IV300 TDA8755 YUV 8-bit AD CONVERTER
IV302 MSM5412222 12 bit FIELD MEMORY
IV301 MSM5412222 VIDEO MEMORY
ACQUISITION PART
MOTION COMPENSATED UPCONVERTER IV303 MCU_1 PLUS UP
DAC DISPLAY PART
PLL ACQ 12/16/18 MHz
PLL CDEFL 27 MHz
PLL CDISP. 20.25/24 27/36 MHz
IV001 STV2165-CD
EDGE REPLACEMENT
PEAKING & CORING
BLACK STRETCH
WHITE STRETCH
COLOUR TRANSIENT IMPROVEMENT
VIDEO
IV001 - STV2162
From BV09 (DCU - Peack Curr. Limiter)
SUB.RGB
BLANKING IN SAFETY MODE
VERTICAL AMPLIFIER
IF01 TDA8177F
IR003 EEPROM
IR001 ST90R92 ROMLESS MICRO (A=AD CONVERTER)
ROM
IR004 BUS EXPANDER MC14094BD
CONTROL
KEYBOARD
BR011
FEATURES MODULE
MEGATEXT DECODER IT01
IT02
256Kx4 DRAM
DVT
DVT MODULE
From BK01 DCU
LINE DRIVER CIRCUIT
DEFLECTION
LINE TRANSFORMER (DST)
ABL AVERAGE BEAM LIMITER
SAFETY CIRCUIT
SWITCHED MODE TRANSFORMER (SMT)
POWER CONTROL (TEA2261)
POWER
DIGITAL CONVERGENCE UNIT
H - PULSE SHAPER
MEMORY IK08 / IK15
UNDER VOLTAGE WATCHDOG TK03/TK04
PWRS
SIGNAL GENERATOR IK01 STV2040
BUFFER GRID - VIDEO TK20 - TK22 - TK24 - TK26
VERTICAL PIN AND KEY PRE - CORRECTION IP02 - RP ...
FILTER VPAR
VPARA (to Dyn. Focus)
PRE AMPL. RH
POW. AMPL. RH
SIGNAL ADDING
From Power Supply PS (BP 260)
DEFLECTION HORIZONTAL
DEFLECTION SPLITTING VERTICAL
V - PULSE GEN. CV41-RV55 DV17-CV43
PWR SUPPLY PRECHARGING
DYN. FOK. TV10
+1KV GENERATOR RV45 DV18 - DV19
BSVM ON / OFF DV09
BLUE GAMMA SAMPLE & HOLD PULSE FORMER TS01-2-3-4
BLUE GAMMA DC - LEVEL TV04 - DV04
PEAK LEVEL CLIPPER TV20 - DV02
+250V SUPPLY CURRENT WATCHDOG
PEAK CURR. LIMITER DV07/27/28 TV11/14/08/07
*SIGNAL DISTRIBUTING (to BK11 - CRT G / B / R)
TO MAIN BV10 CONVAR.
to G2 (R,G,B) CRT BK05
3 X CRT : CRT G - CRT B - CRT R
CRT - VIDEO AMPLIFIER
BSVM PULSE GENERATION
BSVM POWER OUTPUT
VIDEO DELAY
VIDEO AMPLIFIER
CURRENT SENSE
BLUE GAMMA CORRECTION
SPOT KILLER
AND AUXILARY COMPONENTS
BSVM DEFLECTION COIL
HEATER
CATHODE
CONV.
ANODE
AQU
POWER SUPPLY CONVERGENCE PS
SECONDARY VOLTAGES
SMT LP250
SMOOTHING CAPACITORS CP209-CP210
RP210.. RP213 START-UP
POWER STAGE TP220
DRIVER CIRCUIT DP218 - DP219
FOLDBACK POINT CORRECTION RP240 - DP240
SOFTSTART-CIRCUIT RP243 - DP243
FROSIN-CONTROL DP231 - DP232
TON-MIN-CONTROL RP232 - CP231/CP232
OVERVOLTAGE PROTECTION CIRCUIT DP235 - DP237
SWITCH-OFF CIRCUIT TP222-TP223
SMPS ON/OFF TP238
VOLTAGE REGULATION TP270
SAFETY CIRCUIT TP271
OPTO COUPLER IP250
SUPPLY . (DCU - BK04)
RECTIFIER DP201
MIS
CP201 LP201 CP202

MC-Service

BLOCK DIAGRAM - SCHEMA SYNOPTIQUE - BLOCKSCHALTBILD - SCHEMA A BLOCCHI - ESQUEMA DE BLOQUES
RP C19 - DOLBY PRO-LOGIC - PIP

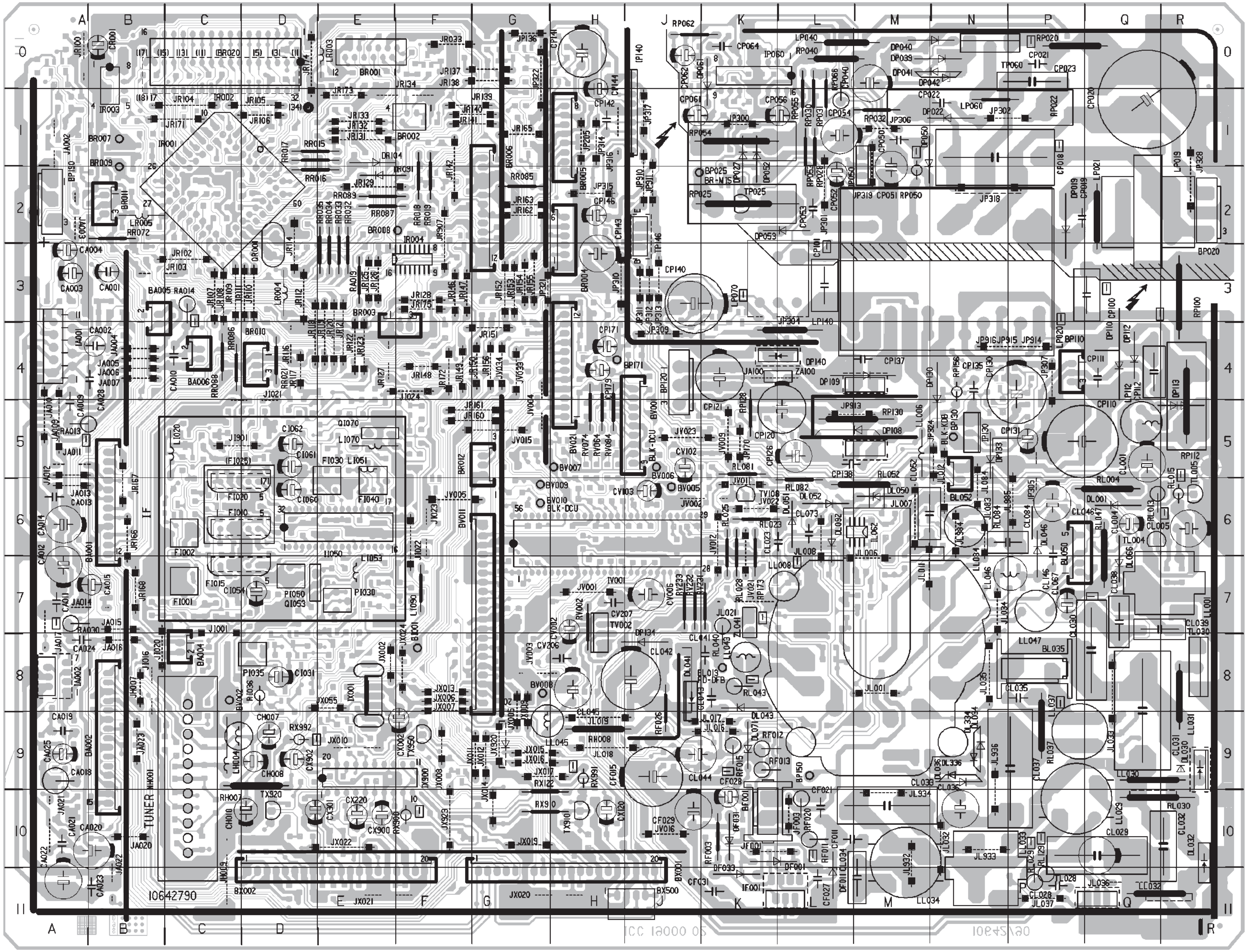

ICC19 - CHASSIS MAIN BOARD
FEP MODULE
POWER SPLITTER
PIP TUNER CTT5010
PROCESS IF I150
DTP MODULE
PIP PROCESSING IY001 - IY003 - IY004
MEGATEXT/OSD PROCESSING IT001 - IT002
R/G/B/FB SWITCH IY006
VIDEO MODULE VM19400
CHROMA DECODER MODULE
UP CONVERTER PART
IV780 HEF 4053BT
IV601 TDA9143N3
IV300 TDA8755
IV302 MSM5412222
MOTION COMPENSATED UPCONVERTER IV303 MCU_1 PLUS UP
IV001 STV2165-CD
IS200 - DLP3518 DOLBY PRO LOGIC SURROUND PROCESSOR
IS100 MSP 3410D
DIGITAL SIGNAL PROCESSOR
IS501 MC4558CD
IS60 - MC4558CD
AUDIO MODULE VIRTUAL DOLBY AM/VD 19000
POWER AMPLIFIER
IA001 TDA7269
BOOMER AMPLIFIER
IA002
TUNER AUDIO PROCESSING
TERRESTRIAL
IF
SCART AUDIO PROCESSING
SCI 19004
SCART
VIDEO
IV001 - STV2162
SUB.RGB BLANKING IN SAFETY MODE
VERTICAL AMPLIFIER TDA8177F
IR001 ST92R22 ROMLESS MICRO
IR004 MC14094BD
BUS EXPANDER
CONTROL
FEATURES MODULE
MEGATEXT DECODER IT01
DVT
DVT MODULE
LINE DRIVER CIRCUIT
DEFLECTION
ABL AVERAGE BEAM LIMITER
SAFETY CIRCUIT
POWER CONTROL (TEA2261)
POWER
DIGITAL CONVERGENCE UNIT
H - PULSE SHAPER
MEMORY
SIGNAL GENERATOR IK01 STV2040
UNDER VOLTAGE WATCHDOG
PWRS
BUFFER GRID - VIDEO TK20 - TK22 - TK24 - TK26
VERTICAL PIN AND KEY PRE - CORRECTION
SIGNAL ADDING
DEFLECTION HORIZONTAL
DEFLECTION SPLITTING VERTICAL
+15V GENERATOR
V - PULSE GEN.
PWM SUPPLY PRECHARGING
DYN. FOK.
BSVM ON / OFF
BLUE GAMMA SAMPLE & HOLD
BLUE GAMMA DC - LEVEL
PEAK LEVEL CLIPPER
+ 250V SUPPLY CURRENT WATCHDOG
PEAK CURR. LIMITER
*SIGNAL DISTRIBUTING (to BE11 - CRT G / B / R)
3 X CRT : CRT G - CRT B - CRT R
CRT - VIDEO AMPLIFIER
BSVM PULSE GENERATION
BSVM POWER OUTPUT
VIDEO DELAY
VIDEO AMPLIFIER
CURRENT SENSE
BLUE GAMMA CORRECTION
SPOT KILLER
ANODE
POWER SUPPLY CONVERGENCE PS
MIS
RECTIFIER
SMOOTHING CAPACITORS
POWER STAGE
DRIVER CIRCUIT
FOLDBACK POINT CORRECTION
SOFTSTART-CIRCUIT
FROSIN-CONTROL
TON-MIN-CONTROL
OVERVOLTAGE PROTECTION CIRCUIT
SWITCH-OFF CIRCUIT
SMPS ON/OFF
VOLTAGE REGULATION
SAFETY CIRCUIT
OPTO COUPLER
SECONDARY VOLTAGES

RP C19
First issue 07 / 98

Updated 07 / 99

MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES


A
B
C
D
E
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G
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J
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L
M
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R
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5
6
7
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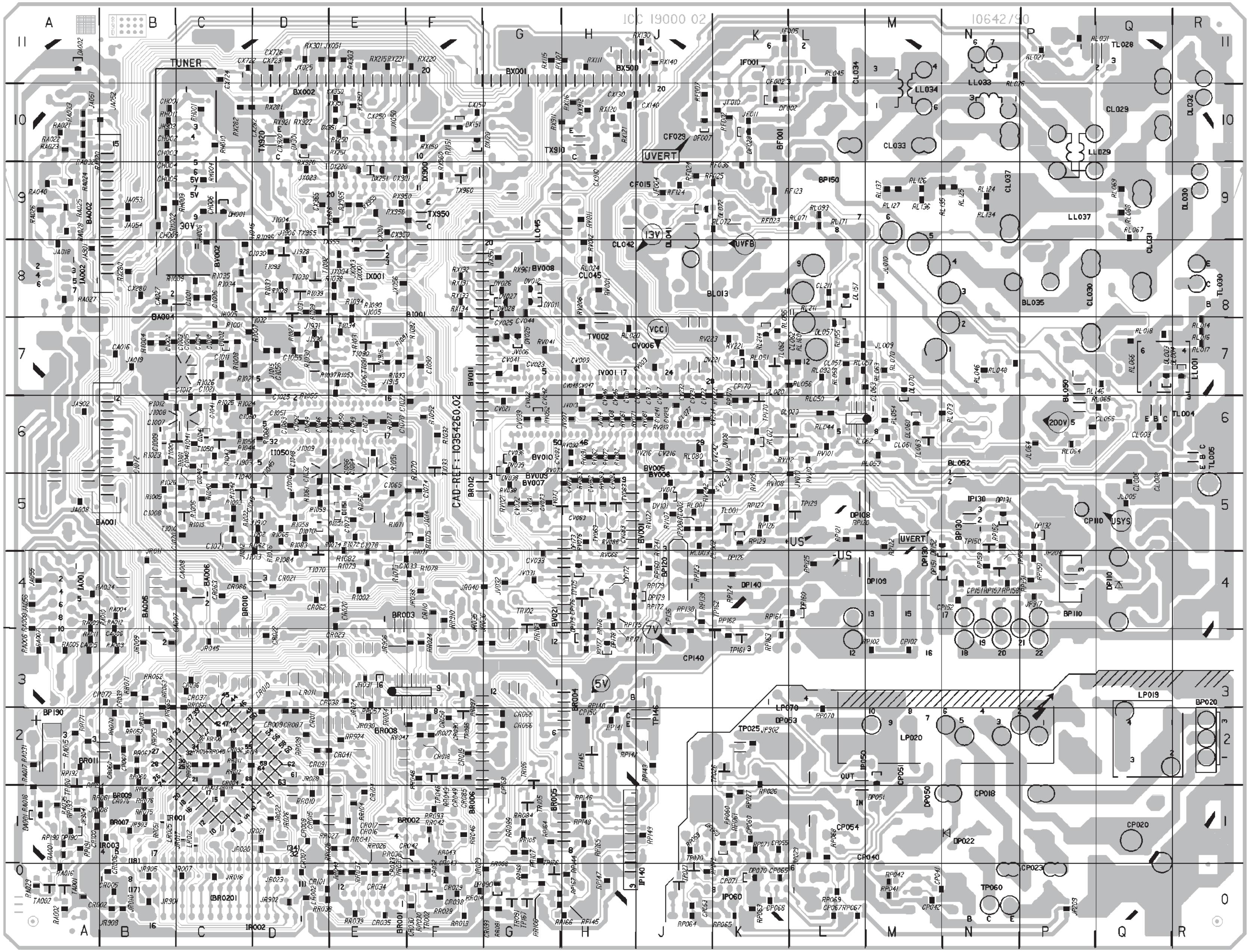
9
10
11
TUNER
IF
I0642790
BX002
JX020
JX021
BX500
BX001
IR001
BR020
CP020
CP140
CL042
CL044
CL029
RP100
BP020
BP150
BP120
BV001
IV001
IX001
CH007
CH008
CX902
CX220
CX900
CX301
CA020
CA021
CA022
CA023
CA025
CA018
CA019
CA014
CA012
CA004
CA003
CA001
CA002
BA001
BA002
BA004
BA005
BA006
IO050
IO053
IO061
IO062
IO070
ZA100
JP913
JP914
JP915
JP916
JL933
JL934
JL936
LL034
LL036

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



A
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C
D
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Q
R
TUNER
ICC 19000 02
10642/90
CAD-REF: 10354260.02
UVERT
13V
VCC1
5V
7V
200V
USYS
-US
US

COMPONENTS LOCATION - LOCALISATION DES ELEMENTS - LAGE DER BAUTEILE - LOCALIZZAZIONE DEGLI ELEMENTI - LOCALIZACION DE LOS COMPONENTES

* SOLDER SIDE - COTE CUIVRE - LÖTSEITE - LATO SALDATURE - LADO DEL COBRE

1	2	3

BA001		B6
BA005		B3
BF001		K10
BI001		F8
BL013		K8
BL035		P8
BL052		N5
BP025		J2
BP110		P4
BP130		N5
BP150		L9
BP171	*	H4
BP190		A2
BR001		E0
BR002		F1
BR003		F4
BR004		H2
BR005		H1
BR006		G2
BR007		B1
BR008		F2
BR009		B2
BR010		D4
BR011		B2
BR012		G5
BV001		J5
BV002		C8
BV005		J6
BV006		J5
BV007	*	H5
BV008		G8
BV009		G6
BV010		G6
BV011		G7
BV021		H4
BX001		H11
BX002		E11
BX500		J11

CA001		B3
CA002		B4
CA003		A3
CA004		A3
CA005	*	B3
CA006	*	B3
CA007	*	C3
CA008	*	C4
CA009		A5
CA010		C4
CA011		A7
CA012		A7
CA013		A6
CA014		A6
CA015		B7
CA016	*	B7
CA018		A9
CA019		A9
CA020		B10
CA021		A10
CA022		A11
CA023		B11
CA024		A8
CA025		A9
CA027	*	C8
CA028		B4
CF002	*	K10
CF011		L10
CF015		J9
CF021		L10
CF027		L11
CF028		K10
CF029		J10
CF031		K11
CH001	*	C10
CH002	*	C10
CH003	*	C10
CH004	*	C9
CH005	*	C9
CH006	*	C9
CH007		D9
CH008		D9
CH009	*	B9
CH010		D10
CI001	*	C8
CI002	*	B7
CI003	*	C7
CI004	*	C7
CI005	*	C7
CI006	*	C8
CI007	*	B6
CI008	*	C5
CI009	*	C6
CI010	*	C7

CI011	*	C7
CI012	*	C6
CI020	*	C5
CI021	*	C6
CI022	*	F6
CI025	*	D7
CI030	*	D8
CI031		D8
CI032	*	E5
CI033	*	F4
CI040	*	C6
CI041	*	C6
CI045	*	D5
CI046	*	E6
CI048	*	D6
CI049	*	D6
CI050	*	D6
CI051	*	D6
CI052	*	D6
CI053	*	E6
CI054		D7
CI055	*	D7
CI056	*	D7
CI060		D6
CI061		D5
CI062		D5
CI063	*	D6
CI064	*	E5
CI065	*	E5
CI066	*	E5
CI070	*	F6
CI071	*	C5
CI072	*	B6
CI073	*	E5
CI074	*	F5
CI077	*	E6
CI078	*	E4
CI090	*	F7
CL001		Q5
CL002	*	K5
CL003	*	Q6
CL004		Q6
CL005		R6
CL006	*	Q5
CL008	*	R5
CL023		L6
CL027	*	J6
CL028		P11
CL029		Q10
CL029		Q10
CL030		Q8
CL031		Q8
CL032		R10
CL033		M10
CL034		M11
CL035		P8
CL036		N10
CL037		P9
CL038		Q7
CL039		R7
CL041		K8
CL042		J8
CL043		K8
CL044		J9
CL045		H8
CL046		P6
CL052		M6
CL057	*	L7
CL061	*	M6
CL062	*	L7
CL063	*	M7
CL066	*	Q6
CL067		P7
CL073		L6
CL084		P6
CL146		P6
CL211	*	L8
CP018		N1
CP019		P2
CP020		Q1
CP021		P0
CP022		N1
CP023		P0
CP040		M0
CP041	*	N0
CP042	*	N0
CP050		M1
CP051		M2
CP052		L2
CP053		L2
CP054		L1
CP055	*	L1
CP056		L1
CP060	*	K1
CP061		J1
CP062		J0
CP063	*	J0
CP064		K0
CP065	*	L0
CP067	*	L0
CP068	*	K0

CP071	*	K0
CP100		P3
CP100		Q3
CP101		L3
CP102	*	M3
CP110		P5
CP111		Q4
CP112		Q4
CP120		L5
CP121		K4
CP126		L5
CP130		P4
CP131		P5
CP135		N4
CP136	*	J3
CP137		M4
CP138		L5
CP140		J3
CP141		H0
CP142		H1
CP143		H3
CP144		H1
CP146		H2
CP150	*	H2
CP151	*	N4
CP152	*	N4
CP168	*	G1
CP170	*	K6
CP171		H4
CP176	*	H4
CP179		H4
CR001		B0
CR002	*	A0
CR003	*	C2
CR004	*	C2
CR005	*	B0
CR006	*	B0
CR007	*	D0
CR008	*	D1
CR009	*	D2
CR010	*	D2
CR011	*	D2
CR015	*	D1
CR016	*	E1
CR017	*	E1
CR018	*	F2
CR019	*	F2
CR020	*	E4
CR021	*	D4
CR022	*	D3
CR023	*	E4
CR029	*	F0
CR030	*	F0
CR032	*	F0
CR033	*	E0
CR034	*	E0
CR035	*	E0
CR036	*	C3
CR037	*	C3
CR038	*	E3
CR039	*	B2
CR041	*	E2
CR042	*	F1
CR043	*	F0
CR049	*	F2
CR050	*	F2
CR060	*	B2
CR062	*	D4
CR063	*	C4
CR065	*	G2
CR066	*	G2
CR067	*	B2
CR072	*	B3
CR075	*	B1
CR085	*	F2
CR086	*	C4
CR087	*	D2
CR090	*	F2
CR091	*	E2
CR092	*	C2
CR093	*	G0
CR098	*	F0
CR100	*	B1
CR101	*	E0
CR104	*	E1
CR110	*	F4
CV002		H7
CV003	*	J6
CV006		J7
CV007	*	J6
CV008	*	H6
CV009	*	H7
CV011	*	J6
CV012	*	J6
CV021	*	G6
CV022	*	G7
CV023	*	G7
CV025	*	G7
CV031	*	G5
CV032	*	G5
CV033	*	G4

CV036	*	G6
CV039	*	G6
CV041	*	G7
CV042	*	G6
CV044	*	G8
CV046	*	H6
CV047	*	H6
CV048	*	H7
CV062	*	H5
CV063	*	H5
CV072	*	H5
CV073	*	H5
CV082	*	H5
CV083	*	H5
CV092	*	H6
CV102		J5
CV103		J6
CV206		H8
CV207		H7
CV213	*	J6
CV216	*	J6
CV222	*	K6
CV231	*	J6
CV232	*	J6
CV234	*	K6
CV241	*	J6
CV242	*	K6
CV243	*	K5
CV246	*	H6
CX001	*	E9
CX002		F9
CX120		H10
CX130	*	J10
CX140	*	J10
CX150	*	G10
CX220		E10
CX250	*	E10
CX280	*	B8
CX282	*	D10
CX301		D10
CX350	*	E10
CX722	*	D11
CX723	*	D11
CX724	*	C11
CX726	*	D11
CX900		E10
CX901	*	F9
CX902		D9
CX910	*	H10
CX920	*	D10
CX950	*	F9
CX965	*	E9

DA001	*	A1
DA002	*	A11
DF001		K10
DF002	*	K10
DF007	*	K10
DF011		L11
DF028	*	K10
DF031		K10
DF033		K11
DH001	*	C9
DI001	*	C5
DI002	*	C7
DI040	*	C6
DI041	*	C6
DI051	*	E5
DI070	*	E5
DI071	*	F5
DL001		Q6
DL003	*	R7
DL004	*	R7
DL023	*	L6
DL030		R9
DL030		R9
DL032		R11
DL034		N9
DL036		N9
DL041		J8
DL041		J8
DL041		J8
DL043		K8
DL046		P6
DL050		M6
DL051		L6
DL052		L6
DL057	*	L7
DL060	*	M6
DL066		Q7
DL070	*	M7
DL071		K9
DL072	*	K9
DL092		L6
DL157	*	L8
DP019		P2
DP022		N1

DP027		K1
DP039		N0
DP040		N0
DP041		N0
DP050		M1
DP051	*	M2
DP052		K1
DP053		L2
DP060	*	K1
DP061		K0
DP070	*	K0
DP108		L5
DP108		M4
DP108		M5
DP109		M4
DP109		M4
DP109		M4
DP110		Q4
DP112		Q4
DP113		R5
DP126	*	K5
DP130		N4
DP131	*	N5
DP132	*	P5
DP133		N5
DP134		J8
DP140		L4
DP140		L4
DP151	*	N4
DP152	*	N5
DP160	*	L4
DP172	*	H4
DP173	*	H4
DP175	*	H3
DP178	*	H3
DP179	*	J4
DP190	*	A1
DR090	*	G0
DR091		E2
DR104		E1
DV011	*	G8
DV012	*	G8
DV025	*	G7
DV026	*	G8
DV027	*	G8
DV028	*	G8
DV038	*	G6
DV039	*	G6
DV101	*	J5
DV104	*	K5
DV108	*	K6
DV221	*	K7
DX001	*	E8
DX120	*	G10
DX151	*	F10
DX220	*	E9
DX251	*	E9
DX301	*	D10
DX351	*	E10

FI001		C7
FI002		C6
FI010		C6
FI015		C7
FI020		C6
FI030		E6
FI040		E6

IA001		A4
IA001		A7
IA001		A8
IA002		A2
IF001		L11
II050		E6
IL062		M6
IP050		M1
IP060		K0
IP130		N5
IP140		J1
IP140		J2
IR001		C2
IR002		C0
IR003		B0
IR004		F3
IV001		H6
IX001		E8
IX001		E8
IX900		E9

JA002		A1

JA003		A2
JA004		B4
JA005		B4
JA006		B4
JA007		B4
JA008	*	A5
JA009		A5
JA010		A5
JA011		A5
JA012		A5
JA013		A6
JA014		B7
JA015		B7
JA016		B8
JA017		A7
JA018	*	A8
JA019	*	B7
JA020		B10
JA021		A10
JA022		B11
JA023		B9
JA051	*	A10
JA052	*	B10
JA053	*	B9
JA054	*	B9
JA055	*	A4
JA056	*	A4
JA100		K4
JA901	*	B8
JA902	*	A6
JF001		K10
JF003		L10
JF004	*	J9
JF005	*	L11
JF010	*	K10
JF011	*	K10
JH005	*	C8
JH006	*	C8
JH007		B8
JH009		C11
JH903	*	C10
JI001		C7
JI004	*	D9
JI005	*	E7
JI006	*	E7
JI008	*	C6
JI009	*	E6
JI010	*	D5
JI012	*	C5
JI013	*	D5
JI014	*	F5
JI015	*	D7
JI016		B8
JI020		B8
JI021		D5
JI022		F6
JI023		F6
JI024		F4
JI901		C5
JI902	*	D5
JI903	*	D6
JI906	*	D8
JI910	*	D5
JI915	*	E7
JI916	*	E7
JI928	*	D8
JI930	*	D7
JI931	*	D8
JL001		M8
JL005	*	Q5
JL006		M7
JL007		M6
JL008		L6
JL009	*	M7
JL010	*	M8
JL011		M7
JL012		N6
JL016		K9
JL017		K9
JL018		H9
JL019		H9
JL020	*	K7
JL021		K7
JL032		N10
JL033		Q8
JL034		N7
JL035		N8
JL036		Q11
JL037		P11
JL064	*	P6
JL083		N6
JL084		N6
JL932		M10
JL933		N10
JL934		M10
JL936		N10
JL984		N6
JL985		P6
JP136		G0
JP170		K5
JP204	*	P5

JP205		H1
JP208	*	J5
JP209	*	P0
JP300		K1
JP301		L2
JP302		P1
JP304		L3
JP305		P5
JP306		M1
JP307		P4
JP309		J4
JP310		H3
JP311		J3
JP312		J3
JP313		J3
JP314		H1
JP315		H2
JP316		H1
JP317		J1
JP318		N2
JP319		M1
JP321		H3
JP322		G0
JP324		N5
JP328		R2
JP902	*	K2
JP910		J2
JP911		J2
JP913		L5
JP914		P4
JP915		P4
JP916		P4
JP917	*	P4
JR007	*	C0
JR008	*	B1
JR009	*	B3
JR010	*	B0
JR011	*	B4
JR013	*	B2
JR016	*	C0
JR017	*	C1
JR018	*	C1
JR019	*	D2
JR020	*	D1
JR021	*	D1
JR022	*	D1
JR023	*	D0
JR024	*	E3
JR026	*	D1
JR027	*	F2
JR028	*	E2
JR029	*	G0
JR030	*	E2
JR031	*	E3
JR033		F0
JR035	*	G3
JR036	*	G3
JR038	*	F4
JR040	*	G4
JR045	*	C3
JR100		A0
JR102		C3
JR103		B3
JR104		C1
JR105		D1
JR106		D1
JR107		C3
JR108		C3
JR109		C3
JR110		D3
JR111		D3
JR112		D3
JR114		D3
JR116		D4
JR117		D4
JR118		D4
JR119		E4
JR120		E4
JR121		E4
JR122		E4
JR123		E4
JR125		E3
JR126		E3
JR127		E4
JR128		F3
JR129		E2
JR131		E1
JR132		E1
JR133		E1
JR134		F1
JR137		G0
JR138		G0
JR139		F1
JR140		G1
JR141		G1
JR142		F2
JR146		F3
JR147		F3
JR148		F4
JR149		F4
JR150		G4

JR151		G4
JR152		G3
JR153		G3
JR154		G3
JR155		G3
JR156		G4
JR160		G5
JR161		G5
JR162		G2
JR163		G2
JR165		G1
JR166		B6
JR167		B6
JR168		B7
JR171		C1
JR172		F4
JR173		E1
JR174		D0
JR175		F3
JR901	*	B0
JR902	*	D0
JR903	*	B1
JR904	*	B1
JR905	*	B0
JR906	*	F3
JR907		F2
JR908	*	B0
JV001		H7
JV002		K6
JV003		G8
JV004		G5
JV005		F6
JV006	*	G7
JV007	*	H6
JV009		K5
JV010	*	L5
JV011		K6
JV012		K6
JV013	*	H6
JV014	*	H6
JV015		G5
JV016		J10
JV017	*	J5
JV021		K6
JV022		K6
JV023		J5
JV031	*	G4
JV032	*	G4
JV033		G4
JV034		G4
JX002		E8
JX003	*	E8
JX004	*	E8
JX005		G8
JX006		F8
JX007		F8
JX008		F9
JX009		G8
JX010		E9
JX011		G9
JX012		G9
JX013		F8
JX014		G10
JX015		G9
JX016		G9
JX017		G9
JX019		G10
JX020		H11
JX021		E11
JX022		E10
JX023	*	E9
JX024		F8
JX025	*	D11
JX050	*	E10
JX051	*	E11
JX055		E8
JX056	*	F8
JX920		G9
JX923		F10

LH004		C9
LH004		C9
LI020		C5
LI051		E5
LI053		E7
LI070		E5
LI090		F7
LL001		R7
LL006		M5
LL008		M8
LL029		P10
LL030		Q9
LL031		R8
LL032		R11
LL033		N11
LL034		M10
LL037		P9
LL043		K8
LL045		H9
LL046		P7
LL047		P7
LL084		N6

LP019		Q2
LP020		N3
LP020		N3
LP021		Q2
LP040		L0
LP060		N1
LP070		L3
LP112		Q5
LP112		Q5
LP140		L4
LR002	*	D0
LR003		E0
LR004		D3
LR005		B2
LR011	*	D3
LR012	*	C1
LR025	*	B1

PI030		E7
PI035		D8
PI050		D7

QI053		D7
QI070		E5
QR001		D3

RA001	*	A1
RA002	*	A0
RA003	*	B3
RA004	*	B4
RA005	*	A3
RA006	*	A3
RA007	*	A3
RA008	*	A4
RA009	*	B4
RA010	*	B4
RA011	*	B3
RA012	*	B4
RA013		A5
RA014		C3
RA015	*	A2
RA016	*	A0
RA017	*	A1
RA018	*	A1
RA019		E3
RA020	*	A10
RA021	*	A10
RA022	*	A10
RA023	*	A10
RA024	*	A9
RA025	*	A9
RA026	*	A9
RA027	*	A8
RA028	*	A9
RA029	*	A0
RA030		A7
RA031	*	A2
RA032	*	A10
RA033	*	A10
RA034	*	B4
RA035	*	A1
RA040	*	A9
RF002	*	K10
RF003		K10
RF007	*	K10
RF011		L10
RF012		K9
RF013		K9
RF015		K9
RF020		L10
RF023	*	K9
RF024	*	J9
RF025	*	K9
RF026		J8
RF036	*	K9
RF123	*	K9
RF124	*	J9
RH001	*	C10
RH002	*	C9
RH003	*	C9
RH004	*	C9
RH007		D9
RH008		H9
RH010	*	C10
RH011	*	C10
RI001	*	C7
RI002	*	E4
RI003	*	C5
RI004	*	B7
RI005	*	C5
RI006	*	C5
RI007	*	D7
RI008	*	C7
RI009	*	C8
RI012	*	C6

RI019	*	C5
RI020	*	C5
RI021	*	D7
RI022	*	C5
RI023	*	C6
RI024	*	C6
RI025	*	C6
RI026	*	C7
RI027	*	D7
RI028	*	D8
RI029	*	E8
RI030	*	E7
RI031	*	E7
RI032	*	F6
RI033	*	D8
RI034	*	C8
RI035	*	D8
RI036		D8
RI037	*	E7
RI038	*	E8
RI039	*	E8
RI040	*	C5
RI041	*	C6
RI042	*	C5
RI043	*	C6
RI044	*	C6
RI045	*	D8
RI049	*	E6
RI050	*	E6
RI051	*	E6
RI052	*	F6
RI053	*	E7
RI054	*	C6
RI055	*	E7
RI056	*	E5
RI058	*	D5
RI059	*	E5
RI061	*	E5
RI062	*	D5
RI065	*	D5
RI066	*	D6
RI070	*	F5
RI071	*	F5
RI072	*	E5
RI073	*	E5
RI074	*	E5
RI075	*	F5
RI076	*	D5
RI077	*	E6
RI078	*	F4
RI079	*	E4
RI082	*	E5
RI083	*	D5
RI084	*	D4
RI090	*	E8
RI091	*	E7
RI092	*	F7
RI093	*	F7
RI094	*	E8
RI095	*	D8
RL001	*	J5
RL002	*	J5
RL003	*	J5
RL004		Q6
RL004		Q6
RL013		Q6
RL014	*	R7
RL015		R6
RL016	*	R7
RL017	*	R7
RL018	*	R7
RL020	*	J7
RL021	*	K6
RL023		K6
RL024	*	H8
RL025		K6
RL026	*	P11
RL027	*	P11
RL028		K6
RL029		P11
RL030		Q10
RL030		Q10
RL031	*	P11
RL037		P9
RL040		K8
RL043		K8
RL044	*	L6
RL045	*	L11
RL046	*	N7
RL047		Q6
RL048	*	P7
RL050	*	L6
RL051	*	K7
RL052		M6
RL053	*	M6
RL054	*	M6
RL055	*	L7
RL056	*	L7
RL057	*	M7
RL058	*	L7
RL063	*	M7
RL064	*	P6
RL065	*	Q6
RL066	*	Q7
RL067	*	Q9
RL068	*	Q9

RL069	*	Q9
RL070	*	M7
RL071	*	L9
RL072	*	K9
RL073	*	N6
RL080	*	J6
RL081		K5
RL082		L6
RL084		P6
RL092	*	L7
RL093	*	L9
RL124	*	N9
RL125	*	N9
RL126	*	M9
RL127	*	M9
RL129		P10
RL134	*	N9
RL135	*	N9
RL136	*	M9
RL137	*	M9
RL146	*	Q7
RL155	*	L7
RL160	*	L7
RL171	*	L9
RL211	*	L8
RL214	*	K7
RP020		P0
RP022		N1
RP025		K2
RP025		K2
RP025		K2
RP026	*	K2
RP027	*	K1
RP028		L1
RP029	*	L1
RP030		L1
RP031		L1
RP032		M1
RP040		L0
RP040		L0
RP041	*	M0
RP042	*	M0
RP050		M2
RP053		L1
RP054		K1
RP054		K1
RP055		L1
RP059	*	J1
RP060	*	K1
RP061	*	K1
RP062		J0
RP063	*	K0
RP064	*	J0
RP065	*	K0
RP066		L1
RP067	*	M0
RP068	*	L1
RP069	*	L0
RP070	*	L2
RP071	*	K1
RP072	*	K0
RP100		R3
RP102	*	M3
RP112		R4
RP112		R5
RP120	*	M5
RP121	*	L5
RP122	*	M5
RP123	*	K4
RP124	*	K4
RP125	*	L4
RP126	*	K5
RP127	*	K5
RP128		K5
RP129	*	K5
RP130		L5
RP138	*	J3
RP139	*	K4
RP140	*	H2
RP141	*	H2
RP142	*	H2
RP143	*	J2
RP144	*	H0
RP145	*	H0
RP146	*	H1
RP147	*	H0
RP148	*	H1
RP149	*	J1
RP150	*	P4
RP151	*	P4
RP152	*	N5
RP156		N4
RP157	*	N4
RP158	*	P4
RP159	*	N4
RP160	*	J4
RP161	*	L4
RP162	*	K3
RP163	*	L3
RP164	*	H1
RP165	*	H1
RP166	*	H0
RP167	*	H0
RP168	*	G0
RP170	*	K6
RP171	*	H4

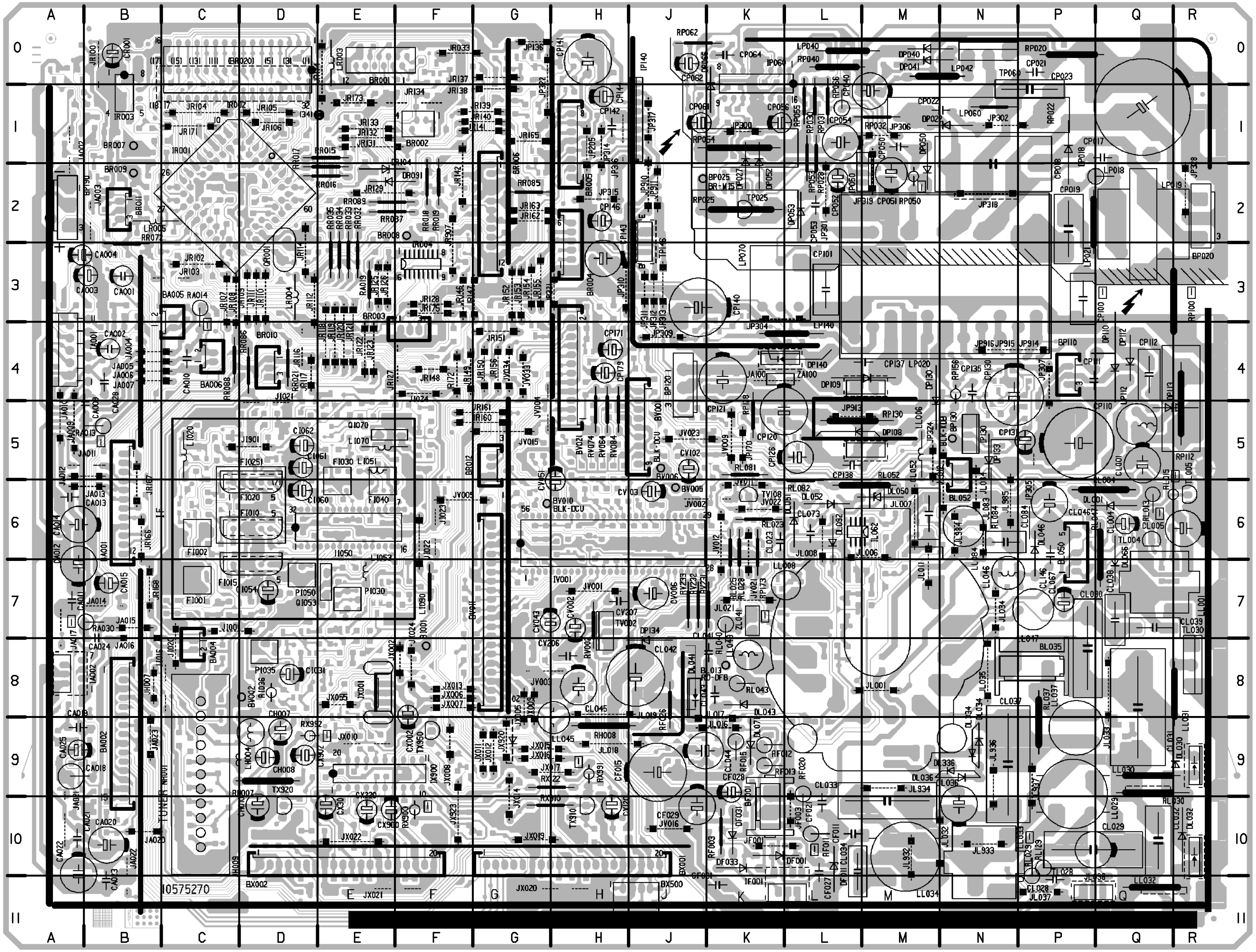
RP172	*	J4
RP173		K6
RP175	*	H4
RP176	*	H4
RP177	*	H3
RP179	*	J4
RP190	*	A1
RP191	*	A1
RP192	*	A2
RP193	*	A1
RP194	*	B2
RR010	*	D1
RR011	*	C2
RR012	*	C2
RR013	*	F0
RR014	*	G0
RR015		D1
RR016		D2
RR017		D1
RR018		F2
RR019		F2
RR021		D4
RR024	*	F3
RR025	*	E0
RR026	*	E0
RR027	*	E1
RR028	*	D2
RR029	*	F0
RR030	*	F0
RR031	*	F0
RR032		E3
RR033		E3
RR034		E3
RR035		E3
RR036	*	F0
RR037	*	E0
RR038	*	E0
RR039	*	E0
RR040	*	E0
RR041	*	E1
RR042	*	F1
RR043	*	F1
RR044	*	C2
RR045	*	C2
RR046	*	F1
RR047	*	F2
RR048	*	F2
RR049	*	F2
RR050	*	B2
RR051	*	B1
RR052	*	B2
RR053	*	C2
RR055	*	C2
RR056	*	C2
RR057	*	E3
RR060	*	B2
RR061	*	B1
RR062	*	B3
RR063	*	B2
RR065	*	C2
RR066	*	C2
RR067	*	B2
RR070	*	B2
RR071	*	B3
RR072		B2
RR075	*	B1
RR076	*	B1
RR084	*	G1
RR085		G2
RR086		C4
RR087		E2
RR088		C4
RR089		E2
RR091	*	G0
RR093	*	F1
RR097	*	F3
RR098	*	G1
RR099	*	G1
RR100	*	C2
RR103	*	G4
RR104	*	E1
RR105	*	G1
RR106	*	G0
RR107	*	G1
RR171	*	B2
RR910	*	F4
RR924	*	E2
RV001	*	H8
RV002		H7
RV003	*	J7
RV011	*	H9
RV012	*	H8
RV021	*	G5
RV022	*	J5
RV038	*	G5
RV041	*	G7
RV052	*	G6
RV061	*	H6
RV062	*	H6
RV063	*	H5
RV064		H5
RV066	*	H5
RV071	*	J6
RV072	*	H6
RV073	*	H5
RV074		H5

RV076	*	H5
RV081	*	J6
RV082	*	H6
RV083	*	H5
RV084		H5
RV086	*	H5
RV091	*	H6
RV092	*	H6
RV101	*	L6
RV107	*	J5
RV108	*	K6
RV109	*	K5
RV110	*	L6
RV112	*	K6
RV206	*	H7
RV213	*	J6
RV216	*	J6
RV221	*	K7
RV222	*	K6
RV223	*	K7
RV231		K7
RV232		J7
RV233		J7
RV241	*	J5
RV242	*	J5
RX107	*	H11
RX111	*	H11
RX115	*	H11
RX116	*	H10
RX120	*	H10
RX121	*	H10
RX122		G10
RX130	*	J11
RX131	*	F8
RX132	*	F8
RX133	*	F8
RX134	*	F8
RX140	*	J11
RX150	*	F10
RX151	*	F10
RX215	*	E11
RX220	*	F11
RX221	*	E11
RX250	*	E10
RX251	*	E10
RX280	*	B8
RX281	*	D10
RX282	*	D10
RX301	*	E11
RX303	*	E11
RX350	*	E10
RX351	*	E10
RX900		F10
RX910		G10
RX911	*	H10
RX912	*	H10
RX920	*	D9
RX921	*	D10
RX922	*	D10
RX950	*	F9
RX951	*	G8
RX955	*	E9
RX956	*	E9
RX960	*	F9
RX961	*	G8
RX965	*	E9
RX966	*	E9
RX991		H9
RX992		D9

TA001	*	A0
TA002	*	A0
TI010	*	C5
TI020	*	C6
TI030	*	D8
TI031	*	D8
TI032	*	D8
TI033	*	F6
TI034	*	E8
TI040	*	D5
TI045	*	D5
TI050	*	C6
TI070	*	E4
TI090	*	E7
TI091	*	E7
TI092	*	D8
TI093	*	D8
TL001	*	K5
TL004		Q6
TL005		R6
TL028	*	Q11
TL028		Q11
TL030		R8
TL030		R9
TL062	*	K7
TL063	*	M6
TP025		K2
TP026	*	K2
TP027	*	J0
TP060		N0
TP070	*	J0
TP129	*	L5

TP145	*	H2
TP146		J2
TP150	*	N5
TP152	*	N4
TP161	*	K3
TP162	*	K3
TP166	*	H0
TP167	*	G0
TP170	*	K6
TP175	*	H4
TP190	*	A1
TR002	*	F0
TR048	*	F2
TR091	*	G0
TR095	*	F2
TR102	*	G4
TR105	*	G1
TR106	*	G2
TV002		H7
TV063	*	H5
TV073	*	H5
TV083	*	H5
TV108		K6
TX910		H10
TX920		D10
TX950		F9
TX955	*	E9
TX960	*	F9
TX965	*	E9

MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL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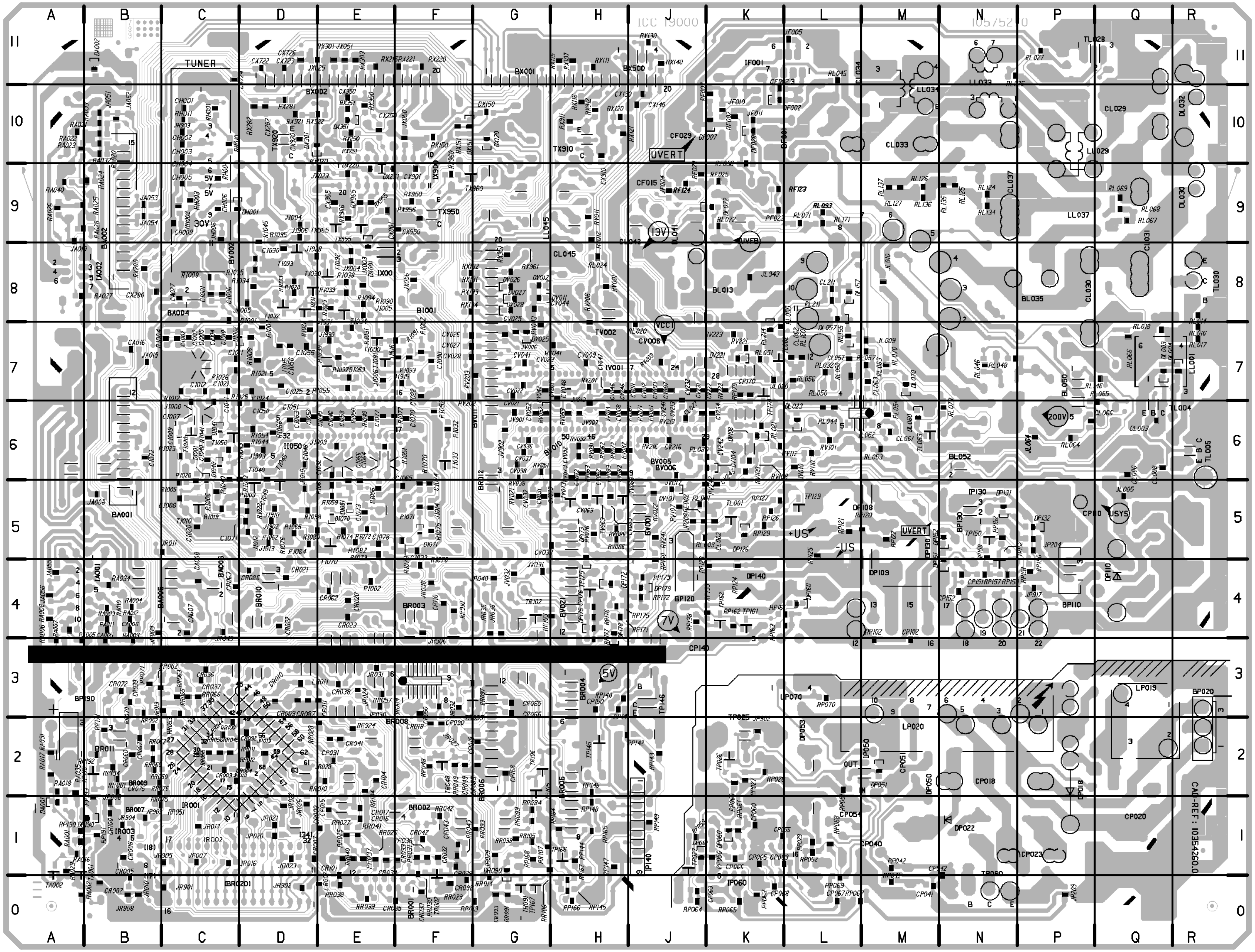
SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS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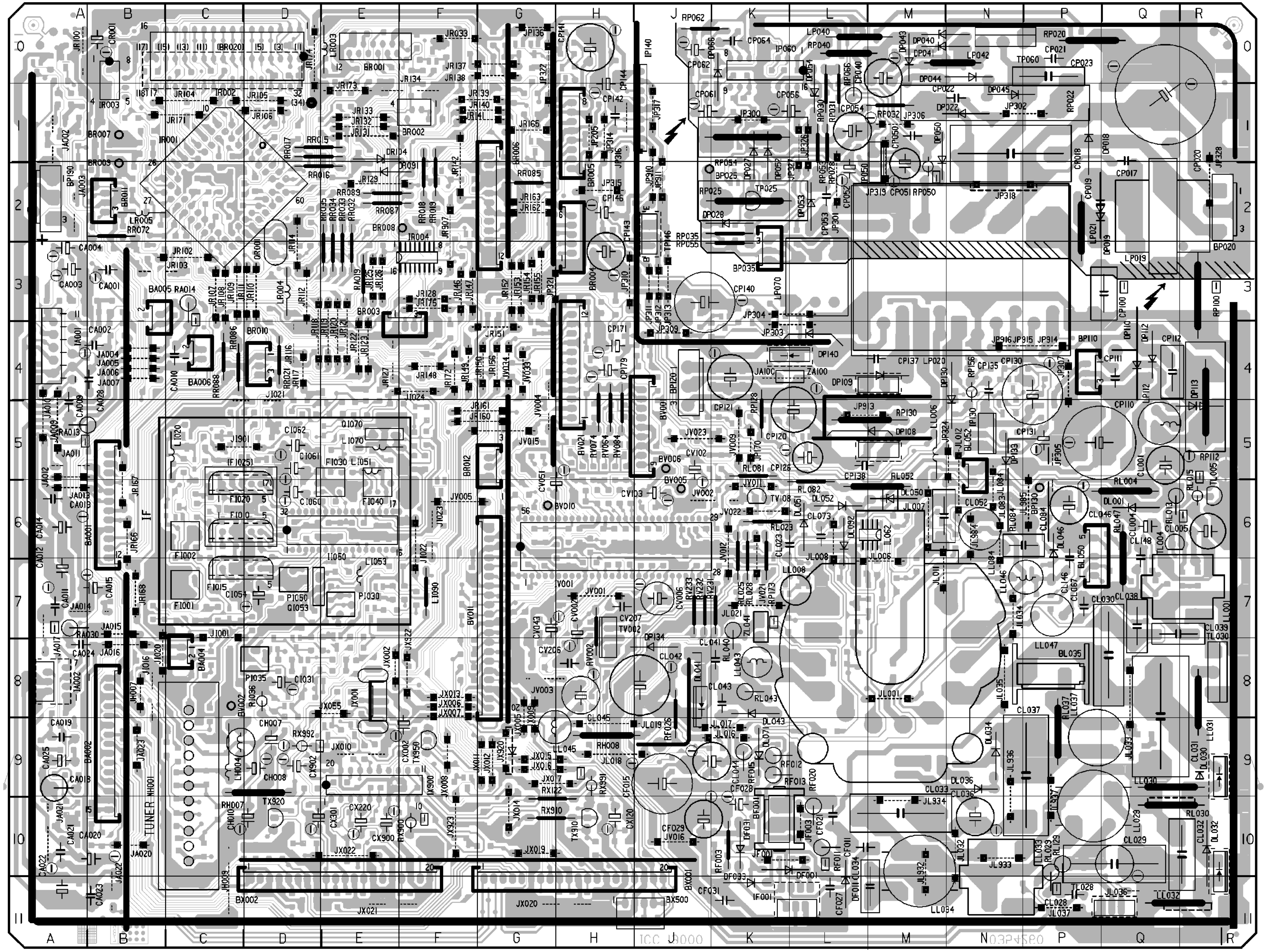
CAD-REF: 10354260.0

MAIN BOARD - PLATINE PRINCIPALE - CHASSIS GRUNDPLATTE - PIASTRA PRINCIPALE - PLATINA PRINCIPAL

COMPONENT SIDE - COTE COMPOSANTS - BESTÜCKUNGSSEITE - LATO COMPONENTI - LADO COMPONENTES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IR001
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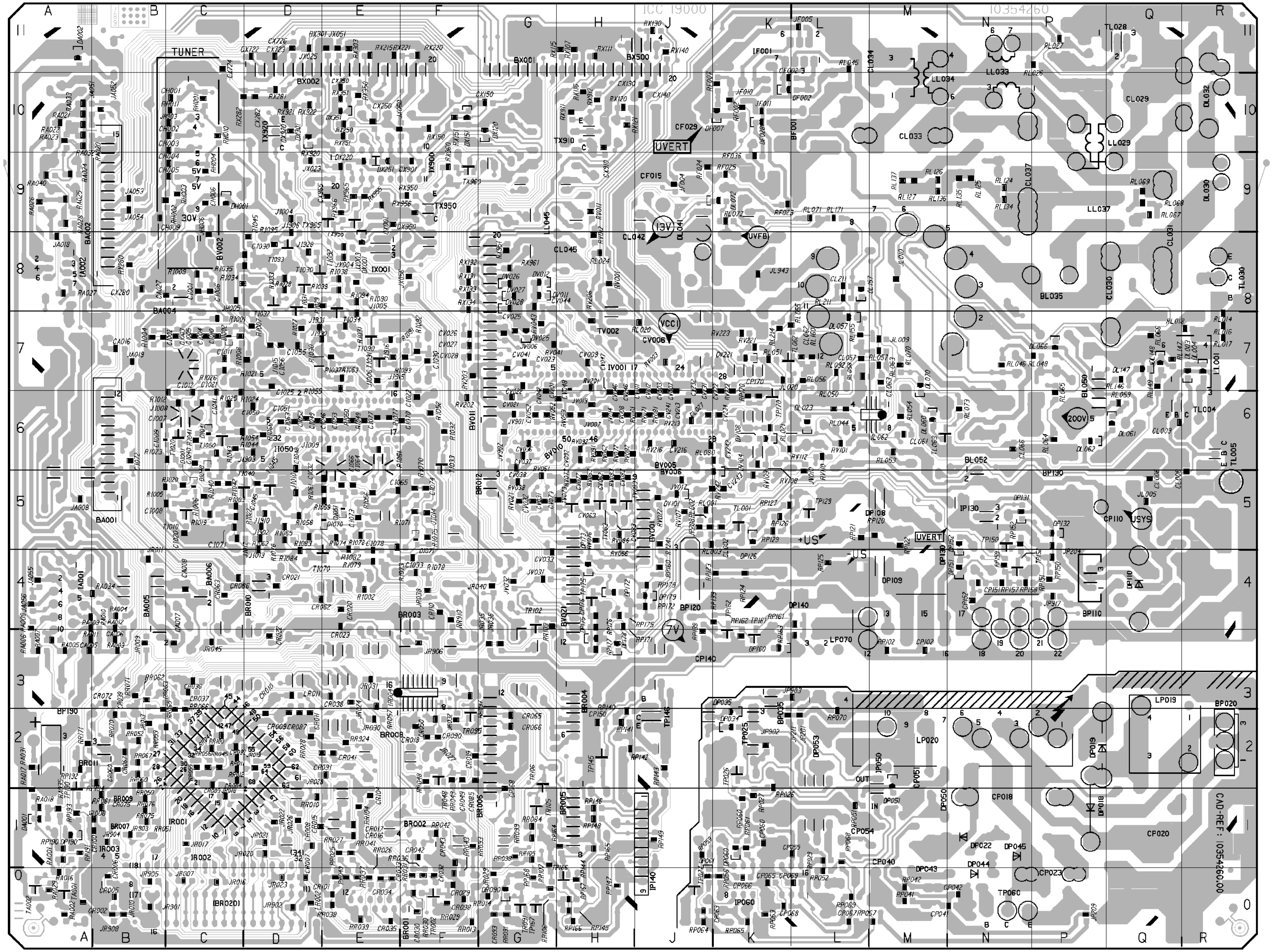
TUNER
BA002
BA004
BA005
BA006
BR010
BR011
BR012
BV011
BP020
BP035
BP100
BP110
BP120
BX001
BX002
BX500
RP062
RP020
RP100
CP100
CP110
CP120
CP140
CP143
CL001
CL029
CL037
CL042
CL044
CF029
JX020
JX021
JX022
LP019
LP021
LL001
LL029
LL030
LL032
TV002
TX910
TX920
ICC 9000
N03P4580

SOLDER SIDE - CÔTE SOUDURES - LÖTSEITE - LATO SALDATURE - LADO SOLDADURAS



THOMSON MULTI MEDIA

TV

Brandt FERGUSON SABA TELEFUNKEN THOMSON

PARTS LIST
LISTE PIECES DETACHEES
ERSATZTEILLISTE
LISTA PARTI DI RICAMBIO
LISTA DE PIEZAS DE REPUESTO

THOMSON
32VK74E
Chassis ICC19

MODULES

MAIN	**IC19M5P808P104**		
AMVD	**AM/VD19000**	**R**	**10546730**
AMVD	**SUBAMVD19100**		**10546720**
CRT	**CRTBS19400**	**R**	**10643320**
DTP	**DTP19510**	**R**	**10611160**
EMB	**EMB19500**	**R**	**10600840**
FCB	**FCB1907**	**R**	**25312710**
FEP	**FEP19100**	**R**	**10579450**
KDB	**KDB1905**	**R**	**25312720**
MIS	**MIS19111**	**R**	**10537030**
PVM	**PVM19100**	**R**	**10576830**
SCI	**SCI19004**	**R**	**10581460**
SFB	**SFBEFC19100**	**R**	**10534310**
VM	**VM19400**	**R**	**10609390**

GK001	TFMK1330T	10132410
IA001	TDA7269	10348790
IA002	TDA7298	10348810
IB001,002,003	TEA5101B	10231440
IF001	TDA8177F	10352880
II050	TDA9811/V3	10336130
IL062	TL082CD FLAT	10364130
IP050,**IX**001	MC7809/CI	70401402
IP060	TEA2261	90542470
IP130	MC7812/CT	46007600
IP140	TDA8139	10044580
IR001	ST90R92	10441970
IR003	M24C64-BN1	10533930
IR004	MC14094BD/HEF4094BT/ BU4094BF FLAT	20016020
IR020	C19 M27C160-120F1 V6.01-1	10652940
IR030	GM76G256AL-FW70 FLAT	10271860
IR040	74F02 FLAT	10529250
IS001,060	MC4558CD IC SMD	10276220
IS010	MC78L08ACP	10308410
IS100	MSP8410D-B4 (DIE)	10546420
IS200	DPL3519 (DIE)	10546430
IT001	SDA5275-2S	10449670
IT002	HYB514400BJ-80	10359750
IV001	STV2165	10360480
IV001	STV2162 CUT2.2	10529490
IV300	TDA8755 FLAT	10147010
IV301,302	MSM5412222-25-TS-K FLAT	10389960
IV303	MCU-1 PLUS FLAT	10598370
IV305,308,311	HEF4046BT FLAT	10261110
IV306	LM358D FLAT	10258670
IV312	TS462 FLAT	10606770
IV601,**IY**001	TDA9143N3	10591540
IV602	TDA4665T FLAT	10155740
IV780	HEF4053BT/BU4053BF/ UPD4053BG FLAT	20230300
IX900	TEA6415C	15081290
IY003	SDA9187	10108180
IY004	SDA9189 FLAT	20693720
IY005	TDA8601 FLAT	20701930
IY006	MC7808CT	10263430
ZL041	MP160	⚠ 10457130
ZV301	MP50	⚠ 10457120
ZY001	MP125	⚠ 10469180

TA001,**TI**030, **TM**052,053,067, 068,082,083, **TP**129,150,166, 190,**TT**002,008, 009,010,**TV**001, 051,053,063, 071,073,083, 382,393,600, 640,660,680, 681,775,785	BC856B SMD	16006310
TA002,**TI**031, 032,070,**TL**001, 062,063,**TM**001, 004,010,050, 051,065,066, 080,081,**TP**026, 027,152,161, 162,167,170, 175,**TR**002,102, 105,**TT**001,003, 006,007,011, 012,**TV**052,072, 395,601,603, 604,641,642, 661,662,682, **TX**955,960,965, **TY**001,002,003, 004,005	BC846B SMD	16006260
TB018,**TL**507, 511,**TV**108	BC327-40	16000450
TI010,033,034, 040,045,050, **TP**145,**TR**091, 095,106,**TT**004	BCR141 SMD	16006890
TI020,**TV**307	BF799 SMD	35031670
TI030,**TX**620, 622,650,652	BC857B SMD	30946660
TI031,**TX**621, 651,830,831, 832,833	BC847B SMD	11070770
TL004	MPSW01A	70436520
TL005	MPS750	16001340
TL028	TIP122FP	25358380
TL030	ON4977/BU2525AX	10461310
TL506,**TM**002	BC337-40	45001466
TL508	BC557C	16001070
TL509,**TZ**012	BC547B	16000890
TM005,**TX**910, 920,950	BC546B	45001866
TM006	2SA1837	16001500
TM007	2SC4793	16001600
TM008	BC557B	16001060
TM009	BC847C SMD	90618810
TP008	BC548B	16000930
TP025	600V 1A25	10353960
TP060	BUL810TH	10224370
TP146	BD241C	16001880
TR048	BCR185 SMD	16006900
TV300	BCP69 SMD	35031480
TV303,381,392	BF660 SMD	16005830
TX505	BC848B SMD	35030590
TZ018	BF422	16003090
TZ022	BF423	16003110
TZ026	SH2G41	48061500

R : RECYCLED PART
: PIECE RECYCLEE
: AUSTAUSCHTEILE
: RICAMBIO RICICLATO
: MODULO REPROCESADO

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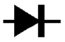
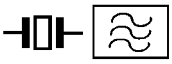
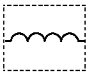


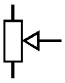
DA001,**DB**026,028,046,048,066,068,**DF**002,028,**DL**070,072,**DM**001,002,009,010,**DP**051,060,126,151,152,160,175,178,179,190,**DR**030,031,090,**DT**001,002,003,004,005,006,007,008,009,010,011,**DV**025,026,027,028,038,039,221,**RV**052	LL4148 SMD		16012450
DA002,**DV**011,012	LL42 SMD		16012530
DB004,007	1N4004		44009009
DB031,032,051,052,071,072,**DL**057,**DS**061,062,**DV**104,108,**DX**120,151,220,251,301,351	BAV103 SMD		10155030
DB050,070	BAV21		44044407
DF001,**DK**001,002,003,004,**DL**092,510,511,512,**DP**008,027,061,**DR**091,**DY**002	1N4148		44009209
DF007	ZMM15 SMD		16030060
DF011	BZW04-58		10368210
DF031,033,**DL**001,051,052,**DM**003,004,**DP**050	RGP10G		10459090
DH001	ZMM33		10376460
DI001,002,040,041,051,070,071	BA782S		20542050
DL030	DTV32F-1500		10452490
DL032	BYR29F-600		10569340
DL041	FUF5402		10458530
DL043	RGP10M		10455320
DL046,**DP**112	MUR1100E		10360280
DL050	BZX85C22		11072690
DL060	ZMM3,3		16030170
DL066	BZX55B47		11073450
DL071	ZPD24		44016504
DL513	BZX55C15		20475420
DP010,012,013	GP30M		10455410
DP022,113	FUF4005/MUR160		16009580
DP039,040	RGP02-20		10472330
DP041	BAT42		16007410
DP052,133,134	1N4001		16008160
DP053	RGP15G		10272800
DP108,109,140	BYW29-150		16009140
DP110	RGP50M		10298160
DP130	RGP30D		10455370
DR104	BZX55B9V1		70438220
DV101	ZMM6,8 SMD		70439940
DV303,305,307	BB729S SMD		20542090
DV623	BZX84C5V1 SMD		16030330
DX810	BZX55B8V2		40441820
DX814	BZX55B5V1/ZPD5V1 2%		44035702
DZ001	BZX55C3V3		30948790
DZ026	BYW76		16009120
DZ033,034	BYT01-200		16008600
GE001	TLUV5300 LED		11137650



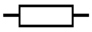
FI010	OFWK3954M FOS		10357610
FI015	OFWG3970M FOS		10512420
FI015	OFWK3953M FOS		10136130
FI020	OFWK9453M FOS		10176450
FV001	12M0HZ		10539340
FV640,660			10295430
FV680			10295420
QI040	5M74HZ		20338170
QI053	6M0HZ		48042300
QI070	6M5HZ		20356510
QR001	27M0HZ		10254120
QS040	18M432HZ		10334670
QT001,**QY**003	20M48HZ		10495020
QV601,**QY**001	4M433619HZ		10087710
QV602,**QY**002	3M579545HZ		10087720



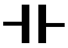
FI001	40M4HZ		20300950
FI002	38M9HZ		10319260
FI030	77M8HZ		10348570
FI030	77M8MHZ		10341210
FI040	6M6HZ		10437980
FM050,065,080	100NS		10203890
LV326,380	7M96HZ		10519350
LV350	7M96HZ		10519370



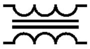
PI030,035	2K2 OHM		10308240
PI050	22K0 OHM		10272680
PL500	78M0 OHM	⚠	10343360



JP310	1K0 OHM 1% 0,25W		15012570
RA013,014,030	4R7 OHM 5% 0,35W	⚠	10226310
RB001,004,079	1K5 OHM 5% 0,50W		10121880
RB006	47R0 OHM 5% 0,70W	⚠	10181910
RB007,009,**RM**017,**RP**050,**RV**312,327,393,601	10R0 OHM 5% 0,25W	⚠	15009580
RB021	619R0 OHM 1% 0,40W		15019980
RB024,044,064	39K0 OHM 2% 4W		10358890
RB027,047,067	2K2 OHM 5% 0,50W	⚠	10152130
RB031,051,071	330R0 OHM 10% 0,50W		14050190
RB041	681R0 OHM 1% 0,40W		15020320
RB061	649R0 OHM 1% 0,40W		15020140
RF011	1R5 OHM 5% 0,50W	⚠	15022560
RF012	1R5 OHM 1% 0,70W		10451140
RF013	1R82 OHM 1% 0,70W		10451420
RF015	15R0 OHM 265V PTC	⚠	10237730
RL013	4R7 OHM 5% 0,50W	⚠	15010040
RL015	1R0 OHM 5% 0,25W	⚠	15009730
RL037	1K0 OHM 10% 0,50W		10393870
RL040	0R27 OHM 5% 2,50W		10263600
RL043	2R2 OHM 5% 0,70W	⚠	13000480
RL052	46K4 OHM 1% 0,70W		10403710
RL082	64K9 OHM 1% 0,13W		10433830
RL129	2R2 OHM 5% 0,50W	⚠	10440420
RL500,**RM**030	22R0 OHM 5% 0,25W	⚠	35031220
RM026	330R0 OHM 5% 0,35W	⚠	10248240
RM057,072,087	221R0 OHM 1% 0,40W		15014310
RM058,073,088	274R0 OHM 1% 0,40W		15015080
RM061,076,091	3K3 OHM 1% 0,40W		15017250
RP005	18R0 OHM 220V PTC	⚠	41398800
RP010	2R7 OHM 5% 4,50W		10379110
RP020,130	0R12 OHM 5% 2,50W	⚠	10334390
RP022	100R0 OHM 5% 4,50W		10379830
RP066	3K65 OHM 1% 0,40W		13066710
RP100	10M0 OHM 5% 0,70W	⚠	10074320
RS042	4R7 OHM 5% 0,25W	⚠	35032200
RX503	15R0 OHM 5% 0,25W	⚠	15009630
RY056	4R7 OHM 10% 0,25W	⚠	13062790
RZ034,035	4K7 OHM 5% 0,50W	⚠	10239330



CB001	10N0F 3K0V		14036450
CB067	100PF 1KV		10103770
CL030	2N7F 5% 2K0V	⚠	10342980
CL031	11N6F 2,5% 2K0V		40406501
CL032	33N0F 5% 1K0V	⚠	10552220
CL033	680N0F 5% 400.0V	⚠	10552180
CL034	12N0F 5% 400V		43324600
CL038,039	27N0F 5% 250V		50895120
CL041,043	330P0F 20% 1K0V		14035270
CL052	10N0F 5% 400V		14035870
CL084	3N9F 5% 400V		10522580
CL146	150P0F 20% 1K0V		30937590
CM041,**CZ**026	4N7F 5% 400V		15001510
CM048	470P0F 10% 400V		14002340
CP001,002	100N0F 20% 275V	⚠	10331520
CP010	1N5F 10% 1K0V		20338740
CP011,012	4N7F 1K0V		10058740
CP013,020	150U0F 385V		43424800
CP022,135,137,138	470P0F 10% 2K0V		10099390
CP023	2N2F 10% 1K0V		13090980
CP050,053,**CZ**021	330P0F 20% 400V		14002220
CP100	1N5F 20% 400V	⚠	10344860
CP101	150P0F 20% 400V	⚠	20738090
CP110	100U0F 50% 200V		10516590
CP111	470P0F 10% 2K0V		25392030
CP112	3N3F 5% 630V		10490550
CZ033	560N0F 5% 250V	⚠	10376360



LL001	DRIVER		10468760
LL008	DSTGDS35	⚠	10576740
LL033			10347660
LL037		⚠	10518250
LP001		⚠	10203560
LP020	SMT57LZ	⚠	10549750
LP070	DRIVER	⚠	60412091

OTHER PARTS
AUTRES PIECES
SONSTIGE TEILE
ALTRE PARTI
OTRAS PIEZAS

BB010	CATHODE RAY TUBE SOCKET SUPPORT TUBE CATHODIQUE BILDROEHRENFASSUNG SUPPORTO TUBO CATODICO SOPORTE T.R.C	⚠	80298800
BJ010	CINCH SOCKET PRISE CINCH CINCH-BUCHSE PRESA CINCH TOMA CINCH		10037440
BJ011	SVHS SOCKET PRISE SVHS S-VHS-BUCHSE PRESA SVHS TOMA SVHS		20392900
BQ012	JACK SOCKET PRISE JACK BUCHSE PRESA JACK TOMA JACK		10539510
BS004	CINCH SOCKET PRISE CINCH CHINCH-BUCHSE PRESA CINCH TOMA CINCH		10261740
BX100,200,300	SCART SOCKET PRISE PERITEL EURO-AV-BUCHSE EUROPRESA NORMALIZZATA EUROCONECTOR		10402480
CE132	HOLDER FOCUS SUPPORT FOKUS HALTER FOKUS SUPPORTO FOKUS SUPPORT FOKUS		10353780
CH200	ON/OFF SWITCH CONTACTEUR MARCHE/ARRET EIN-AUS SCHALTER CONTATTORE ACCESO/SPENTO CONTACTOR MARCHA/PARADA	⚠	10276500
FP001	2A5T TIME-LAG FUSE 2A5T FUSIBLE TEMPORISE 2A5T THERMISCHE SICHERUNG 2A5T FUSIBILE TEMPORIZZATO 2A5T FUSIBLE TEMPORIZADO	⚠	10246750
IR001	IC SUPPORT 4X17 SUPPORT CI 4X17 IC-FASSUNG 4X17 SUPPORTO CI 4X17 SOPORTE CI 4X17		67626900
IR020	IC SUPPORT 2X21 SUPPORT CI 2X21 IC-FASSUNG 2X21 SUPPORTO CI 2X21 SOPORTE CI 2X21		67085500
NH001	CTT5000T UHF/VHF TUNER CTT5000T TETE UHF/VHF CTT5000T UHF/VHF TUNER CTT5000T TUNER UHF/VHF CTT5000T SINTONIZADOR UHF/VHF		20808880
NH001	ANTENNA PREAMPLIFIER PREAMPLIFICATEUR D'ANTENNE ANTENNE VORVERSTAERKER PREAMPLIFICATORE ANTENNA PREAMPLIFICADOR ANTENA		20731620
NH002	CTT5010 UHF/VHF TUNER CTT5010 TETE UHF/VHF CTT5010 UHF/VHF TUNER CTT5010 TUNER UHF/VHF CTT5010 SINTONIZADOR UHF/VHF		20812280
SK001,002,003,004	MICROSWITCH MICRO CONTACTEUR MIKROSCHALTER MICROINTERRUTTORE MICROCONTACTOR		30011100
SP005	RELAY 12V RELAIS 12V RELAIS 12V RELE 12V RELE 12V	⚠	90294100

EQUIPMENT/PRESENTATION
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AUSSTATTUNG/GEHAEUSE
PARTI VARIE
EQUIPO/PRESENTACION

FRONT PANEL FACADE FRONTPLATTE PANNELLO FRONTALE PANEL FRONTAL		25398580
REAR PANEL DOS RUECKWAND PANNELLO POSTERIORE TAPA POSTERIOR	⚠	25410900
LOUDSPEAKER GRID BOOMER GRILLE HAUT PARLEUR GRAVES LAUTSPRECHER GITTER TIEFTOENER GRIGLIA ALTOPARLANTE SUPERIOR REJILLA ALTAVOZ GRAVES		25419400
JACK COVER LEFT VOLET PRISE JACK GAUCHE BUCHSENKLAPPE LINKS SPORTELLO PRESA JACK SINISTRA TAPA TOMA JACK IZQUIERDA		25397490
FLAP RIGHT VOLET DROIT KLAPPE RECHTS SPORTELLO DESTRA TAPA DERECHA		25397400
SPRING CATCH, PLASTIC LOQUETEAU PLASTIQUE DRUCKSCHNAEPPER CHIUSURA DI PLASTICA PESTILLO PLASTICO		65040100
LOGO THOMSON LOGO THOMSON SCHRIFTZUG THOMSON MARCHIO THOMSON LOGOTIPO THOMSON		25376750
LOUDSPEAKER GRID LEFT/RIGHT GRILLE HAUT PARLEUR GAUCHE/DROIT LAUTSPRECHERGITTER LINKS/RECHTS GRIGLIA ALTOPARLANTE SINISTRA/DESTRA REJILLA ALTAVOZ IZQUIERDA/DERECHA		25386260
CHASSIS SUPPORT SUPPORT CHASSIS CHASSIS HALTER SUPPORTO CHASSIS SOPORTE CHASSIS		25344020
COVER SCART SOCKET CACHE PRISE PERITEL ABDECKUNG EURO-AV-BUCHSE COPERCHIO EUROPRESA NORMALIZZATA CUBIERTA EUROCONECTOR		25298150
LOUDSPEAKER GUIDE CORNET ACOUSTIQUE FUEHRUNGSSCHIENE LAUTSPRECHER GUIDA ALTOPARLANTE GUIA ALTAVOZ		25377470
8R OHM 15W LOUDSPEAKER 60X125 8R OHM 15W HAUT PARLEUR 60X125 8R OHM 15W LAUTSPRECHER 60X125 8R OHM 15W ALTOPARLANTE 60X125 8R OHM 15W ALTAVOZ 60X125		10467060
8R OHM 15W LOUDSPEAKER 27X42 8R OHM 15W HAUT PARLEUR 27X42 8R OHM 15W LAUTSPRECHER 27X42 8R OHM 15W ALTOPARLANTE 27X42 8R OHM 15W ALTAVOZ 27X42		10317160
4R OHM 30W LOUDSPEAKER 130MM 4R OHM 30W HAUT PARLEUR 130MM 4R OHM 30W LAUTSPRECHER 130MM 4R OHM 30W ALTOPARLANTE 130MM 4R OHM 30W ALTAVOZ 130MM		10517870
LOUDSPEAKER BOX ENCEINTE ACOUSTQUE LAUTSPRECHERBOX CASSA ACUSTICA CAJA ACUSTICA		25397330
BUTTON ASSY ENSEMBLE DE TOUCHES TASTENEINHEIT ASSIEME TASTI CONJUNTO DE TECLAS		25374950
ON/OFF BUTTON TOUCHE MARCHE/ARRET EIN-AUS TASTE TASTO ACCESO/SPENTO TECLA MARCHA/PARADA		25374940
POWER SUPPLY LEAD CORDON D'ALIMENTATION NETZKABEL CAVO DI ALIMENTAZIONE CABLE DE ALIMENTACION	⚠	10260880
W76EGV023X122 CATHODE RAY TUBE W76EGV023X122 TUBE CATHODIQUE W76EGV023X122 FARBBILDROEHRE W76EGV023X122 TUBO CATODICO W76EGV023X122 T.R.C	⚠	10460350
DEGAUSSING COIL BOBINE DE DEMAGNETISATION ENTMAGNETISIERUNGSSPULE BOBINA DI SMAGNETIZZAZIONE BOBINA DE DESIMANTACION	⚠	47320146
RCT4156 REMOTE CONTROL RCT4156 TELECOMMANDE RCT4156 FERNBEDIENUNG RCT4156 TELECOMANDO RCT4156 TELEMANDO		21021080
FOLDING BOX EMBALLAGE CARTON KARTON IMBALLAGGIO CARTONE EMBALAJE CARTON		25375110
FITTING DOWNER CALE INFERIEURE POLSTER UNTEN DISTANZIATORE INFERIORE CALZO INFERIOR		25375090
FITTING UPPER CALE SUPERIEURE POLSTER OBEN DISTANZIATORE SUPERIORE CALZO SUPERIOR		25375080

32VK74E PARTS LIST	35093940
32VK74E LISTE DE PIECES DETACHEES	
32VK74E ERSATZTEILLISTE	
32VK74E LISTA PARTI DI RICAMBIO	
32VK74E LISTA DE PIEZAS DE REPUESTO	
ICC19 100HZ SERVICE MANUAL	35047630
ICC19 100HZ DOC TECHNIQUE	
ICC19 100HZ TECHNISCHE DOKUMENTATION	
ICC19 100HZ DOCUMENTAZIONE TECNICA	
ICC19 100HZ DOCUMENTACION TECNICA	
ICC19 100HZ SUPPLEMENT	35073510
ICC19 100HZ ADDITIF	
ICC19 100HZ ERGANZUNG	
ICC19 100HZ AGGIORNAMENTO	
ICC19 100HZ SUPLEMENTO	
32VK74E UM TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/P/GR/SK/RU	25392060
32VK74E NU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/P/GR/SK/RU	
32VK74E BA TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/P/GR/SK/RU	
32VK74E IU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/P/GR/SK/RU	
32VK74E IU TH D/F/I/E/GB/NL/S/DK/ PL/CZ/H/P/GR/SK/RU	
CDROM ICC19 VERSION 2	35075700
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CDROM ICC19 VERSION 2	

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